

Exhibit 20

1 UNITED STATES DISTRICT COURT
 2 DISTRICT OF NEW JERSEY
 3 TRENTON VICINAGE

4 ASSOCIATION OF NEW JERSEY) Civil Action No.
 5 RIFLE & PISTOL CLUBS, et al,) 3:18-cv-101507

6)
 7 Plaintiffs,

8 v.

9) Deposition of:
 10 CLAYTON E. CRAMER

11)
 12 MICHAEL PLATKIN, et al,

13)
 14 Defendants.

15 ----- X
 16 MARK CHEESEMAN, et al,) Civil Action No.

17)
 18 Plaintiffs,

19 v.

20)
 21 MICHAEL PLATKIN, et al,

22)
 23 Defendants.

24 ----- X
 25 BLAKE ELLMAN, et al,) Civil Action No.

26)
 27 Plaintiffs,

28 v.

29)
 30 MICHAEL PLATKIN, et al,

31)
 32 Defendants.

33 ----- X
 34 Transcript of the stenographic notes of
 35 the proceedings in the above-entitled matter, as
 36 taken by and before MARY VARGAS, CCR, held via Zoom,
 37 with the witness located in Middletown, Idaho, on
 38 Monday, August 21, 2023, commencing at 10:12 a.m.
 39 (EST).

40 Assignment No. 6058311

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MARKED FOR A RULING

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REQUESTS FOR PRODUCTION

PAGE	DESCRIPTION
16	Clean copy of page 114 of pdf (Exhibit 1)

1 THE COURT REPORTER: The attorneys
2 participating in this deposition acknowledge that I
3 am not physically present in the deposition room and
4 I will be reporting this deposition remotely. They
5 further acknowledge that, in lieu of an oath
6 administered in person, I will administer the oath
7 remotely. The parties and their counsel consent to
8 this arrangement and waive any objections to this
9 manner of reporting.

10 Please indicate your agreement by
11 stating your appearance and your agreement on the
12 record.

13 MR. VANNELLA: I consent. Daniel
14 Vannella, Assistant Attorney General.

15 MR. SCHMUTTER: Daniel Schmutter of
16 Hartman & Winnicki for the plaintiffs in The
17 Association of New Jersey Rifle & Pistol Clubs case
18 and the Ellman case and we consent. Thank you.

19 CLAYTON E. CRAMER,
20 having been duly sworn, was examined and testified as
21 follows:

22 EXAMINATION

23 BY MR. VANNELLA:

24 Q. Good morning, Mr. Cramer.

25 A. Good morning.

1 Q. My name is Dan Vannella. I am an
2 Assistant Attorney General for the State of New
3 Jersey. We are here today in the matters of
4 Association of New Jersey Rifle & Pistol Clubs vs.
5 Platkin and Ellman vs. Platkin, which are
6 consolidated, along with the matter of Cheeseman vs.
7 Platkin. Among all those matters, I represent
8 defendants Attorney General of New Jersey and
9 Superintendent of the New Jersey State Police. And
10 in the Cheeseman matter I also represent the Camden
11 County Prosecutor and the Ocean County Prosecutor.

12 The Association of New Jersey Rifle &
13 Pistol Clubs case is challenging New Jersey's
14 regulation of large-capacity magazines. And the
15 Ellman case, as well as the Cheeseman case, are
16 challenging New Jersey's regulation of assault
17 firearms.

18 Mr. Cramer, we are here today for your
19 deposition. And just for the record, I would just
20 add that on August 18th, 2023 counsel for the
21 Cheeseman plaintiffs Bradley Lehman advised us that
22 neither he nor any other counsel on behalf of
23 Cheeseman plaintiffs is expected to participate
24 during today's deposition and as of now no one has
25 entered an appearance.

1 Mr. Schmutter, is that your
2 understanding, as well?

3 MR. SCHMUTTER: It is. Thank you.

4 Q. Now, Mr. Cramer, you have had your
5 deposition taken before. Correct?

6 A. Yes, I've had depositions taken
7 before.

8 Q. So all the same, for the sake of this
9 record, I will provide you now with a few
10 instructions. If at any time during the deposition
11 you do not hear a question clearly, please ask the
12 court reporter to repeat it. If at any time you do
13 not understand my question, please ask me to clarify
14 it. If you answer a question, it will be assumed
15 that you understood it. If you do not know or do not
16 remember certain information, please say so. Please
17 wait until I finish my questions before you start
18 answering. Please convey all of your answers orally.
19 The court reporter cannot record facial expressions
20 or gestures. If at any time you need to take a
21 break, please let me know. All I ask is that we take
22 breaks after you have finished answering a question.

23 From the time you were sworn in until
24 the end of the deposition, there is to be no
25 communication between yourself and your counsel

1 concerning the substance of this deposition, unless
2 it relates to the assertion of a privilege, a right
3 to confidentiality, or limitation pursuant to a
4 previously entered Court Order.

5 Do you understand all of these
6 instructions?

7 A. Yes, I do.

8 Q. Is there any reason why you could not
9 give accurate testimony today?

10 A. No.

11 Q. Now, Mr. Cramer, it's been represented
12 to me by my opposing counsel that you have been
13 retained as an expert specifically in the Ellman
14 litigation and The Association of New Jersey Rifle &
15 Pistol Clubs' litigation, but not the Cheeseman
16 litigation. Is that your understanding, as well?

17 A. Yes.

18 Q. And my further understanding is that
19 you are being offered not as an affirmative expert in
20 these matters, but only as a rebuttal expert. Do you
21 understand the difference between the two?

22 A. Yes.

23 Q. And you agree you are being offered in
24 these matters only as a rebuttal expert?

25 A. Yes.

1 Q. Did you speak with anyone in
2 preparation for your deposition today?

3 A. Yes.

4 Q. Who did you speak with?

5 A. Dan Schmutter.

6 Q. When did you speak with Mr. Schmutter?

7 A. Friday and yesterday.

8 Q. Okay. And for how long total did you
9 speak with Mr. Schmutter on Friday and yesterday?

10 A. Perhaps an hour and a half.

11 Q. Did you speak with any of the
12 plaintiffs in either of these matters?

13 A. I have never spoken to any of the
14 plaintiffs.

15 Q. Are you familiar with Emanuel
16 Kapelsohn?

17 A. I have read his declaration. I do not
18 know him.

19 Q. And Kapelsohn is spelled
20 K-a-p-e-l-s-o-h-n.

21 So did you speak with Mr. Kapelsohn in
22 preparation for your deposition?

23 A. No.

24 Q. Are you familiar with Ashley
25 Hlebinsky, H-l-e-b-i-n-s-k-y?

1 A. I have spoken to her various times
2 over the last couple of years generally about
3 historical matters.

4 Q. Okay. Did you speak with her at any
5 time in preparation for your deposition today?

6 A. No.

7 Q. Did you speak with anyone other than
8 Mr. Schmutter in preparation for your deposition
9 today?

10 A. No.

11 Q. Did you review any materials in
12 preparation for your deposition today?

13 A. Yes, I reread both my rebuttals and
14 also the expert Declarations for which they were
15 rebuttals to.

16 Q. And which Declarations do you mean?

17 A. Cornell, Roth, Spitzer, Klarevas.
18 Although I do not think I actually produced a
19 rebuttal for Klarevas.

20 Q. I'm sorry. You said Cornell, Roth,
21 Klarevas, and who else?

22 A. Spitzer.

23 Q. Other than Declarations from expert
24 witnesses in these matters, did you review any other
25 materials -- and your own report -- did you review

1 any other materials in preparation for this
2 deposition?

3 A. No.

4 Q. Did you bring any documents with you
5 today for your deposition?

6 A. Yes.

7 Q. Which documents?

8 A. An ad for cannon and canister shot
9 that appeared in 1789 in Pennsylvania. And an ad
10 from a 1799 newspaper offering cannon for sale.

11 (Exhibit 1 is marked and introduced in
12 Exhibit Share.)

13 Q. Mr. Cramer, I hopefully have shared
14 through Exhibit Share what has been marked as Exhibit
15 1 for purposes of this deposition. Can you please
16 try to see if you're able to access it.

17 MR. SCHMUTTER: Excuse me, Dan. Could
18 you do me a favor. I can't find the Exhibit Share
19 link. Is it possible for someone to send it to me
20 again?

21 MR. VANNELLA: Yeah. Why don't we go
22 off the record for a few minutes and try to figure
23 this out.

24 MR. SCHMUTTER: Sorry about that.

25 (Discussion held off the record.)

1 MR. VANNELLA: Back on the record.

2 MR. SCHMUTTER: If we're back on, I
3 would just make a request under Rule 30(e) that we
4 would like an opportunity to review the transcript
5 and make appropriate corrections. Thank you.

6 BY MR. VANNELLA:

7 Q. So, Mr. Cramer, I have shared with you
8 what has been marked as Exhibit 1 for purposes of
9 this deposition. I will represent that I received
10 this document from Mr. Schmutter on July 17th, 2023.
11 Do you recognize this document?

12 A. Yes, I do.

13 Q. What is it?

14 A. It is my Rebuttal declaration
15 concerning Cornell and it looks like Spitzer and I
16 think Roth. I have not read through the entire
17 document, of course, it's 119 pages, but it looks
18 like one that I created, yes.

19 Q. Did you provide this Rebuttal Report
20 to Mr. Schmutter?

21 A. Yes.

22 Q. Is this a complete and accurate copy
23 of the report that you provided to Mr. Schmutter?

24 A. It would appear to me, unless you want
25 me to sit and read through all 119 pages.

1 Q. Well, I'll again represent this is
2 exactly what I received, but --

3 A. Okay.

4 Q. -- if at any point you see any issue
5 with your report, let me know.

6 MR. SCHMUTTER: Let me just put an
7 objection on the record. The witness has said that
8 he can't verify its exactness without going through
9 each page. So, I mean, you know, he's free to accept
10 your representation that it's his report, and that's
11 fine, but with the caveat that he has not inspected
12 it; and, therefore, he's not verifying that it is
13 page for page his report.

14 MR. VANNELLA: Fine. I'll again
15 represent this is everything we've received regarding
16 Mr. Cramer's report and so the record is what it is.
17 BY MR. VANNELLA:

18 Q. Mr. Cramer, I'll direct your attention
19 now to page 110 of this report, which is actually
20 page 112 of the pdf and then I'll ask once you reach
21 that page if the signature on that page is your
22 signature?

23 A. Yes, it is.

24 Q. Did you prepare this Rebuttal Report
25 in its entirety, the one that you gave to

1 Mr. Schmutter?

2 A. Yes, I did.

3 Q. Did anyone assist you in the
4 preparation of your report?

5 A. One person at one point assisted me in
6 looking for typos.

7 Q. And who's that person?

8 A. His name is Dave Golden.

9 Q. And is Mr. Golden an associate of
10 yours?

11 A. I guess a friend is probably a better
12 description.

13 Q. Okay. You asked -- did you reach out
14 to Mr. Golden to ask him to assist you in that
15 regard?

16 A. Yes.

17 Q. Was he compensated by you for that?

18 A. Yes.

19 Q. How much?

20 A. One hundred fifty an hour.

21 Q. Okay. And how many hours did he
22 perform those services on this report?

23 A. I would have to look that up. I know
24 it was a few hours.

25 Q. I want to direct your attention now to

1 page one of this report. It includes a date of July
2 17th, 2023. Is that the date that you signed this
3 report?

4 A. Yes.

5 Q. Are all of the statements and
6 conclusions offered in this report your own?

7 A. Yes, they are.

8 Q. And sitting here today, do you confirm
9 and stand by all of the statements and conclusions
10 that you rendered in your report?

11 A. Yes, I do.

12 Q. Is there anything else you would like
13 to add to this report that you would rely upon in
14 support of the testimony that you intend to render in
15 these matters?

16 A. No.

17 Q. You mentioned Mr. Golden billing or
18 receiving compensation for services he performed.
19 Did you bill for any services you performed yourself
20 in preparing this report?

21 A. Yes, I billed Mr. Schmutter's firm for
22 150 an hour for my time and Dave Golden's time.

23 Q. Are you billing for your services
24 today in offering this deposition testimony?

25 A. Yes.

1 Q. How much are you billing for these
2 services?

3 A. One hundred fifty per hour.

4 Q. Are you billing for any other services
5 that you're providing in these matters other than
6 what you've already stated?

7 A. No.

8 Q. Other than your Rebuttal Report, is
9 there any other document that you have prepared and
10 provided to Mr. Schmutter's firm with the expectation
11 that it would be served on the parties in these
12 matters?

13 A. No.

14 Q. I want to now direct your attention to
15 what is page 114 on the pdf.

16 A. Okay.

17 Q. And actually on the page before that
18 it states "Exhibit A." Correct?

19 A. Correct.

20 Q. And in the pages that follow, which is
21 "Exhibit A" attached to your report, is this a
22 complete and current version of your Curriculum Vitae
23 as of today?

24 A. It's not quite current because the
25 address and phone number on this are from one year or

1 two ago and I, obviously, did not notice that when I
2 was returning the C.V.

3 Q. Okay. Is there anything else that you
4 need to add or correct in this Curriculum Vitae?

5 A. No.

6 Q. Looking on page 114 of the pdf, it
7 appears that the bottom half of the text is cut off
8 on the left side. Do you agree with that?

9 A. On page 114?

10 Q. Yes.

11 A. It does appear that something got
12 scrambled there.

13 (REQUEST FOR PRODUCTION.)

14 MR. VANNELLA: I'll again represent
15 this is what we had received from plaintiff's
16 counsel.

17 Mr. Schmutter, would you be able to
18 provide a clean copy of just this one page of his
19 report?

20 MR. SCHMUTTER: Yes.

21 MR. VANNELLA: Thank you.

22 BY MR. VANNELLA:

23 Q. Now, you testified earlier that you
24 did have your deposition taken before today in
25 another matter. Correct?

1 A. Yes.

2 MR. SCHMUTTER: Could I ask the court
3 reporter to please make a list of the requests of
4 Counsel. Thank you.

5 MR. VANNELLA: Yeah. I do not intend
6 to follow up on that particular request in writing,
7 but, you know, we made that request on the record.
8 BY MR. VANNELLA:

9 Q. Does your Rebuttal Report, Exhibit 1,
10 indicate any deposition that you had previously
11 given?

12 A. I do not believe it does.

13 Q. Does it indicate that you have
14 testified previously in any court matter as an expert
15 witness?

16 A. No, it does not.

17 Q. Now, am I correct that in January of
18 2023 you had your deposition taken in the matter of
19 Oregon Firearms Federation vs. Brown?

20 A. Yes.

21 Q. And you were deposed as an expert
22 witness?

23 A. Yes.

24 Q. And the Oregon Firearms Federation
25 matter concerned in part a challenge to Oregon's law

1 regulating the capacity of firearm magazines that may
2 be used by private civilians. Is that correct?

3 A. Yes.

4 Q. And in that matter plaintiffs were
5 challenging a small piece at least in part on the
6 Second Amendment. Is that correct?

7 A. Yes.

8 Q. You were an expert for the plaintiffs
9 in that case?

10 A. Yes.

11 Q. Did you testify in any other
12 proceedings in that case?

13 A. I think there might have been a
14 followup at one point. I submitted a revised version
15 of one of my reports about mass murder in American
16 history.

17 Q. Why did you submit a revised report?

18 A. They wanted -- my initial report had
19 examined all instances of mass murder, which included
20 some of the events that were group activities where a
21 number of people participated in the mass murder and
22 they wanted a break down of the information based on
23 instances where one individual committed the mass
24 murder.

25 They also noticed some slight

1 discrepancies in how some of the data was calculated
2 and presented.

3 Q. Was it because the data in your first
4 report was erroneous in any way?

5 A. Yes, I would say it was erroneous in a
6 couple of ways and then as a result I spent some time
7 with an expert on database development to go through
8 and that way to produce a more complete and accurate
9 statement of the data.

10 Q. Do you know if as of today there has
11 been a trial or some other hearing before a judge in
12 that case?

13 A. I do not know for sure.

14 Q. So you did not, therefore, testify in
15 any trial or other hearing before a judge in this
16 case -- in that case?

17 A. No, I did not.

18 Q. Am I correct you have also had your
19 deposition taken in the matter of Baird vs. Bonta?
20 Baird is B-a-i-r-d. Bonta, B-o-n-t-a.

21 A. Yes.

22 Q. And in that matter you were again
23 deposed as an expert witness?

24 A. Yes.

25 Q. And that matter concerned in part a

1 challenge to California's law regulating the open
2 carry of handguns in public. Is that correct?

3 A. Yes.

4 Q. And in that matter plaintiffs were
5 challenging this law based at least in part on the
6 Second Amendment. Is that correct?

7 A. Yes.

8 Q. And you were an expert for the
9 plaintiffs in that case?

10 A. Yes.

11 Q. Did you testify in any other
12 proceedings in that case?

13 A. No.

14 Q. So besides the Oregon Firearms
15 Federation and the Baird cases, have you ever
16 provided expert deposition testimony in any other
17 case?

18 A. Yes.

19 Q. And was there more than one?

20 A. I think it was the only one, but hang
21 on while I pull up my list here of cases I've
22 participated in.

23 Q. Okay. Well, what other cases -- can
24 you name me one other case in which you have provided
25 expert deposition testimony?

1 A. I think in one of the Illinois cases.
2 Let me see what the name of it is.

3 Q. Mr. Cramer, it might be my sound, or
4 there are times that I'm having difficulty hearing
5 exactly what you're saying. I don't know if the
6 court reporter is having an issue, but I am. So I'll
7 need to ask you to repeat your answer. Did you say
8 Illinois?

9 A. There was an Illinois case in which I
10 believe that I gave a deposition. I'm trying to find
11 the name of it right now.

12 Q. Was that a Federal Court matter or a
13 State Court matter?

14 A. It was a Federal Court matter. It was
15 a challenge to Illinois Assault Weapons Ban.

16 Q. And what year did you give this
17 deposition testimony?

18 A. I believe it would have been this
19 year.

20 Q. 2023?

21 A. Yes.

22 Q. But at this moment you don't recall
23 the name of that case?

24 A. No, I do not. There was so many of
25 these cases.

1 Q. Okay. If you do recall the name of
2 that case later on today during the deposition,
3 please, you know, let us know.

4 Other than that case, and the other
5 two cases that we've already discussed, have you ever
6 had your deposition taken as an expert in any other
7 matter?

8 A. I do not recall any such case. It may
9 well have happened. There's been an awful lot of
10 these over the last few months.

11 Q. Have you ever testified as an expert
12 in any court hearing or trial before a judge?

13 A. Yes, there was a case in California
14 before Judge Benitez.

15 Q. Was that hearing or trial this year?

16 A. I believe it was late last year.

17 Q. If I gave the case name Boland vs.
18 Bonta, is that the case you're referring to?

19 A. That rings a bell. I do see a Boland
20 v. Bonta in my list of cases in which I have
21 submitted expert Declarations.

22 Q. Well, the case in front of Judge
23 Benitez that you have in your mind, did that case
24 concern a challenge to laws that were regulating
25 firearms that private citizens could own?

1 A. Yes, I believe this was, involved the
2 Uniform Handgun -- let's say Handgun Act.

3 Q. In that case, were you testifying in
4 support of the challenger to the law or in defense of
5 the law?

6 A. The challenge of the law.

7 Q. Did that case concern in any way a
8 challenge to a law that regulated magazines
9 specifically?

10 A. Yes, I recall that it did.

11 Q. And were you offering expert testimony
12 as to both, both of those legal issues, the --

13 A. Yes.

14 Q. -- and the firearms?

15 A. Yes.

16 Q. And with regard to the magazines, were
17 you also testifying in support of the challenger to
18 that law?

19 A. Yes.

20 Q. Going back to the Oregon Firearms
21 Federation case, did you submit an expert report or a
22 declaration in that case?

23 A. Yes.

24 Q. Did you do so in the Baird case?

25 A. Yes.

1 Q. Did you do so in the California case
2 in front of -- that was presided by Judge Benitez?

3 A. Yes.

4 Q. Did you do so in the Illinois case
5 that you had mentioned --

6 A. Yes.

7 Q. -- previously?

8 Besides those cases, and, of course,
9 the matters that we are here for today, have you ever
10 submitted an expert report or a declaration in any
11 other case?

12 A. Not that I can immediately remember.
13 As I said, there's been a lot of these. I've been a
14 very busy person in the last eight months or so.

15 Q. Well, is there any -- if not in your
16 Curriculum Vitae that's attached to your report, is
17 there any other place where there is a complete and
18 up-to-date copy of any lists of any cases in which
19 you have testified as an expert witness?

20 A. No. I am beginning to change that in
21 the future. I'm beginning to make a list of these
22 cases, however. It is on my list of things to do.

23 Q. To your knowledge, have your
24 qualifications as an expert ever been rejected by a
25 Court in a litigation matter in which you were held

1 out to be an expert?

2 A. No.

3 Q. To your knowledge, have your opinions
4 proffered as an expert ever been challenged or
5 rejected by a Court in a litigation matter in which
6 you you were held out to be an expert?

7 MR. SCHMUTTER: Objection. Compound
8 question.

9 Q. By the way, you can answer the
10 question, unless, even if an objection is made,
11 unless your attorney instructs you not to.

12 MR. SCHMUTTER: You may answer it.

13 A. In Baird v. Bonta, Professor Roth
14 filed a surrebuttal in which he claimed that my
15 argument that mass murders where children are killed
16 the children shall not be counted as victims.

17 Q. Okay. Just to be clear, my question
18 was about whether a Court had ever challenged or
19 rejected an opinion that you offered, so more
20 specifically a judge, has a judge ordered?

21 A. No.

22 MR. SCHMUTTER: Same objection.

23 Q. In the last five years, what
24 percentage of your income approximately has been
25 driven from your work as an expert in litigation

1 matters?

2 A. I would have to do some calculation on
3 that, but it's a very small part. I'm independently
4 wealthy.

5 Q. Okay. When you say fairly small part,
6 do you mean, for example, less than 25 percent?

7 A. Yes. Over the last five years,
8 definitely less than 25 percent.

9 Q. If we talk about your last ten years,
10 the percentage of your income from your work as an
11 expert in litigation matters, is it the same
12 approximate percentage, or is it different than from
13 the last five years alone?

14 A. It would definitely be less. I've
15 only -- I did not actually do any expert declarations
16 until 2021.

17 Q. Are you currently involved with any
18 litigation matter involving the State of New Jersey
19 or any of its departments or employees other than
20 these matters?

21 A. No.

22 Q. Are you currently providing any
23 consultant or expert services to the State of New
24 Jersey or any of its departments or employees?

25 A. No.

1 Q. So for the purposes of your rebuttal
2 report, what subject matters are you holding yourself
3 out as an expert?

4 A. The history of mass murder in the
5 United States as it is relevant to the question of
6 magazine capacity and also the history of firearms
7 and magazine capacity as a part of the historical
8 record. Basically what sort of high-capacity or
9 high-danger weapons have been available in the past
10 for use by private citizens.

11 MR. SCHMUTTER: I'm just going to
12 object just note that the report speaks for itself.

13 Q. Did you finish your answer,
14 Mr. Cramer?

15 A. Yes, I did.

16 Q. Do you consider yourself to be an
17 historian?

18 A. Yes.

19 Q. What qualities you to be an historian?

20 A. I hold a Master's degree in History
21 and my work has been cited by two Supreme Court
22 decisions and dozens of State Supreme Court decisions
23 and Appellate Court decisions at the Federal level.

24 Q. You mentioned -- so you have a
25 Master's in History. Do you hold a Ph.D. of any

1 kind?

2 A. No, I do not.

3 Q. Would you agree that, in general, most
4 historians recognized in the field of such hold
5 Ph.D.s?

6 MR. SCHMUTTER: Objection. Ambiguous
7 and lack of foundation. You can answer.

8 A. I would say that most historians in
9 the field do have Ph.D.s. I never pursued a Ph.D.
10 because I looked at how poorly professors are paid
11 and I said I could not afford to invest time and
12 money to take a 40 percent cut in pay.

13 Q. For your Master's degree, did you
14 write a dissertation or thesis?

15 A. Yes.

16 Q. What was that about?

17 A. It was about the issue of concealed
18 weapon laws in the Early Republic.

19 Q. When you performed research for this
20 dissertation or thesis, did you rely on primary or
21 secondary sources?

22 A. Almost entirely primary sources.

23 Q. Why not secondary sources?

24 A. As a general rule, historians consider
25 secondary sources generally somewhat less reliable

1 because they represent the biases and assumptions of
2 the secondary -- the historian doing the, regarding
3 the secondary source. If you go back to primary
4 sources, you're a little bit more likely of getting a
5 completely accurate description of what actually
6 happened and what the situation was the people were
7 trying to create the laws for.

8 Q. Can you describe the methodology that
9 you utilized for your -- and, I'm sorry, did you call
10 it a thesis or a dissertation?

11 A. Thesis.

12 Q. Thesis. Can you describe the
13 methodology that you utilized for your thesis?

14 A. Well, I started out with a hypothesis
15 as to the origins of the Early Republic's concealed
16 weapon laws. And as I go through the statutes and I
17 looked at newspaper coverage of the events leading up
18 to these laws and read some of the secondary sources
19 of the history of violence in the Early Republic, I
20 began to realize that my hypothesis was, in fact,
21 incorrect; that these laws were not primarily
22 associated with or intended to restrict or regulate
23 possession of firearms by Blacks.

24 Q. Was your thesis peer-reviewed?

25 A. No. The only review is by two of my

1 professors and Professor Cottroll of George
2 Washington University.

3 Q. How do you spell that name?

4 A. C-o-t-t-r-o-l-l.

5 Q. Why wasn't your thesis peer-reviewed?

6 A. Peer review is not normally done at
7 the thesis level. Peer review is usually done when
8 articles are published in journals.

9 Q. Was your thesis published?

10 A. It was published as a book by Praeger
11 Publishing. They are a division of what was then
12 Greenwood Publishing, which is a highly respected
13 academic publisher.

14 Q. At present what is your primary source
15 of employment?

16 A. Employment is College of Western
17 Idaho; however, that is one class I teach most
18 semesters. And my primary source of income is my
19 IRA. I had a stroke in 2014, which caused me to
20 retire from my work as a Software Engineer, and as a
21 result I have not been employed in the conventional
22 sense of the word except for teaching and writing
23 articles for magazines, and now, of course, producing
24 expert declarations.

25 Q. And I appreciate you mentioned your

1 sources of income and your IRA, but as far as actual
2 employment with an employer, you do work as a
3 professor at this time, you said?

4 A. The technical title is Adjunct.
5 Professors usually only refer to the full-time
6 employees.

7 Q. Well, what's the difference between an
8 Adjunct Professor and just a professor?

9 A. Adjuncts are generally paid poorly and
10 they are -- they're basically used as-needed, if
11 there is a semester where there is, there aren't
12 enough students for a particular class, but you don't
13 get a class to teach.

14 Q. By the way, you mentioned before
15 Praeger Publishing. How do you spell Praeger?

16 A. P-r-a-e-g-e-r.

17 Q. Thank you.

18 And you might have said this already,
19 but which college are you an Adjunct Professor at
20 now?

21 A. College of Western Idaho.

22 Q. What types of degrees does it offer?

23 A. Associate's degrees, although they are
24 just beginning to offer Bachelor's degree in one
25 program in management.

1 Q. Is it a community college?

2 A. Yes.

3 Q. How long have you worked there?

4 A. Intermittently since 2010. After the
5 stroke, I spent several years recovering from that
6 and did not resume teaching there until 2017.

7 Q. So you've been teaching there
8 continuously since 2017?

9 A. Yes.

10 Q. And what classes have you taught there
11 since 2017?

12 A. American History, first semester,
13 which is basically up to Reconstruction; Western
14 Civilization, basically up to The Peace of Westphalia
15 in 1648, and History of the Fourteenth Amendment.

16 Q. So that would be the Fourteenth
17 Amendment from its enactment up to the present?

18 A. Yes. I actually started at the
19 Constitution basically tracking forward how slavery
20 created this problem that was eventually resolved
21 with the Thirteenth Amendment, and to some extent the
22 Fourteenth Amendment, which was resolving the problem
23 of the freedman.

24 Q. Other than what we've discussed, have
25 you held any other teaching positions during your

1 career?

2 A. I taught a class in Constitutional
3 History at Boise State University and I think it was
4 2002.

5 Q. So that was for one, one semester or
6 one school year?

7 A. It was one semester. The person who
8 originally had been scheduled to teach that class, it
9 was a full-time professor then, decided he did not
10 feel qualified to teach the class. The department
11 Chair hunted around and found me and decided that I
12 was properly qualified to teach it.

13 Q. In that regard, were you considered an
14 Adjunct Professor?

15 A. Adjunct, yes. I was still working
16 full-time as a Software Engineer for Hewlett-Packard,
17 so this was something I did not do on my lunch break,
18 basically.

19 Q. Have you at any point ever been
20 employed as a full-time professor?

21 A. No.

22 Q. Have you ever been employed as a
23 researcher for any university or college?

24 A. No.

25 Q. Now, turning to your report in

1 general. At several points, in your report you use
2 the term assault weapon. Is that correct?

3 A. Yes.

4 Q. When you use the term assault weapon,
5 what specifically do you mean?

6 A. I mean the general use of that to
7 refer to semiautomatic weapons of an appearance that
8 seems to cause an awful lot of upset, the definition
9 used by the California Assault Weapons Control Act of
10 1989, and the Federal Assault Act passed in 1994.

11 Q. Have you reviewed any of the New
12 Jersey statutes that define the term assault firearm?

13 A. I have not reviewed those statutes.

14 Q. Okay. In preparation for this report,
15 have you reviewed any New Jersey laws at all?

16 A. No.

17 Q. Again, at several points in your
18 report you use the term either large-capacity
19 magazines or LCMs for short. Is that correct?

20 A. Yes.

21 Q. When you use the term large-capacity
22 magazine, what specifically do you mean?

23 A. What I mean is magazines that have a
24 capacity above what the state has decided qualifies
25 as a large-capacity magazine. For example,

1 Delaware's law in which I filed an expert declaration
2 defines a high, large-capacity magazine as exceeding
3 17 rounds.

4 Q. Okay.

5 A. And many other states use ten rounds
6 as their definition of a large-capacity magazine.

7 Q. Do you know what definition New Jersey
8 uses?

9 A. I'm not exactly sure.

10 Q. Okay. So your understanding is that
11 different states may have different definitions in
12 terms of the number of rounds of ammunition that a
13 magazine can hold when it defines large-capacity
14 magazines?

15 A. Yes. Oregon uses ten. Illinois uses
16 ten. California uses ten.

17 Q. So then you would consider any law
18 that sets a limit on the number of rounds of
19 ammunition that a magazine could hold as a
20 large-capacity magazine law or large-capacity
21 magazine ban?

22 A. Yes. All of them -- some of the
23 fundamental -- those sort of limits are not
24 historically driven.

25 Q. Going back to your Curriculum Vitae

1 for a moment. Does it list all of the publications
2 that you have ever produced?

3 A. It lists -- no, it does not. I
4 definitely need to update at this point. I sent it
5 out to Mr. Schmutter.

6 Q. Could a full and complete list of your
7 publications be found anywhere?

8 A. Yes, on my website I have a complete
9 list of all my published books, which includes a
10 couple more that are on this list, and also includes
11 a complete list of all of my scholarly articles and
12 the court cases in which they've been cited. My
13 website is ClaytonCramer.com.

14 Q. And is that list on ClaytonCramer.com
15 complete and accurate as of today?

16 A. Yes. Every time I find out about a
17 new court case that has cited my work, I go ahead and
18 update my list of scholarly publications where my
19 work cases or my work has been cited.

20 Q. You mean you update to add the name of
21 the court case that cites one of your works, not
22 adding one of your works itself?

23 A. Right. Normally, I add the
24 publication when it happens, but when it gets cited I
25 definitely add that to the list of court cases that

1 have cited it.

2 Q. Have any of the books that you've
3 published concern the history of firearms?

4 A. Yes.

5 Q. Which books?

6 A. Well, let's see. "For the Defense of
7 Themselves and the State: The Original Intent and
8 Judicial Interpretation of the Right to Keep and Bear
9 Arms," published by Praeger Press in 1994.

10 "Concealed Weapon Laws of the Early
11 Republic: Dueling, Southern Violence, and Moral
12 Reform," published by Praeger Press in 1999.

13 "Armed America: The Remarkable Story
14 of How and Why Guns Became as American as Apple Pie,"
15 published by Nelson Current in 2006.

16 And most recently a book called,
17 "Lock, Stock, and Barrel," and that was published by
18 Praeger in 2019.

19 Q. Did any of those books specifically
20 concern assault weapons?

21 A. Well, certainly "For the Defense of
22 Themselves and the State" does examine a few of the
23 statutes associated with assault weapons.

24 Q. Have any of the books that you've
25 published concern large-capacity magazines?

1 A. No.

2 Q. Have any of the books you've published
3 been peer-reviewed?

4 A. No. Peer review is not very typical
5 for books. It's more typical for journal articles.

6 Q. Have you authored or coauthored any
7 published law review articles?

8 A. Yes, quite a number.

9 Q. Did any of those law review articles
10 concern the history of firearms?

11 A. Yes. One was cited in DC vs. Heller,
12 coauthored with Joseph Edward Olson, "What did 'Bear
13 Arms' mean in the Second Amendment?" That was in
14 Georgetown Journal of Law & Public Policy in 2008.

15 And another one that was coauthored
16 with Don B. Kates called, "Second Amendment
17 Limitations and Criminological Considerations," was
18 in the Hastings Law Journal. And it's been cited in
19 a number of decisions by Appellate Courts and State
20 Supreme Courts.

21 And an article I coauthored with
22 Nicholas J. Johnson and George A. Mocsary describes
23 "This Right is Not Allowed by Governments that are
24 Afraid of the People': The Public Meaning of the
25 Second Amendment When the Fourteenth Amendment was

1 Ratified." That was published in George Mason Law
2 Review in 2010 and was cited in McDonald vs. Chicago,
3 2010.

4 Q. And did any of those specifically
5 concern assault firearms?

6 A. No.

7 Q. Have any of your published law review
8 articles concerned large-capacity magazines?

9 A. No.

10 Q. Have any of the law review articles
11 you published or, you know, authored or coauthored
12 been peer-reviewed?

13 A. No, law review articles are not really
14 peer-reviewed, although they are very carefully
15 checked by the editors in most cases. The peer
16 review process where they verify every statement and
17 fact and every quote is really quite demanding.

18 In some cases, where they could not
19 find the source in a library, they had me go ahead
20 and provide a photocopy of the sources I was using.
21 It's really much more impressive than what happens
22 when history journals publish stuff. In that case,
23 they rely on peer review and they often do not bother
24 to check the sources.

25 Peer review in history journals often

1 result in some really spectacular disasters. A guy
2 named Michael Bellesiles was a professor at Emory
3 University and he published several articles that
4 were peer-reviewed that had made some claims that
5 turned out to be utterly false about restriction of
6 firearms in Early America.

7 I and several other people examined
8 his claims in great detail and by the time we were
9 done -- the Bancroft Prize, which he had been awarded
10 by Columbia University for his book had been revoked
11 for the first time they've ever done that and he now
12 tends bar instead of teaching. He was a Full
13 Professor at Emory by the end of this and then he
14 became a bartender.

15 Q. You know a lot about him, it sounds
16 like.

17 A. Yeah. Well, we went head-to-head for
18 some time. And it was interesting watching that. It
19 was sad, actually, watching how he came up with
20 increasingly ridiculous excuses for why he could not
21 provide evidence to support his claims. First it was
22 a flood had destroyed all of his notes. And a number
23 of people asked why is it that the data for which you
24 constructed these graphs about firearms ownership,
25 why is that data not available. Even if your

1 original notes are destroyed, you should still have a
2 spreadsheet of some sort containing this information.
3 And, of course, he did not provide that either.

4 Q. Turning now to any journal other than
5 a law review. Have you ever published a paper or
6 study in a journal other than a law review?

7 A. Yes, the Journal of Mass Media Ethics,
8 "Ethical Problems of Mass Murder Coverage in the Mass
9 Media." That was in 1993-1994 Edition and that was
10 peer-reviewed.

11 Q. Were there any others?

12 A. No.

13 Q. What methodology did you use to
14 prepare your Rebuttal Report in these cases?

15 A. Well, I read through each of the
16 declarations and then I used my knowledge to -- first
17 of all, I would often look up the cited sources and
18 see if they actually matched to a claim that was
19 being made. In many cases, the sources they cited,
20 when you looked them up, they don't match at all.
21 Some cases they cite laws that do not exist. They
22 have citations to statutes that do not seem to have
23 ever been passed, or to which do not appear in any of
24 the session laws that they claim that they're in. In
25 some cases, they have made claims that what laws said

1 and when we look up the law it does not say anything
2 of the sort.

3 Q. Would you agree that proper
4 methodology includes having a critical awareness of
5 one's own personal bias?

6 A. Absolutely.

7 MR. SCHMUTTER: Objection. Objection
8 to no foundation.

9 A. I would agree that it is almost
10 inevitable that almost anyone who spends much time
11 studying a subject, meaning if you are a professor,
12 or any other academic and you spend decades of your
13 life studying a subject, it will influence the
14 conclusions that you draw about what makes sense.

15 People, for example, who have studied
16 the subject thoroughly and come to the conclusion
17 that restrictive gun control laws makes sense are
18 likely to find that what they look for, the evidence
19 that they look at matches what they expect to find.

20 Of course, it's one of the things that
21 you're supposed to do as an historian. You're
22 supposed to learn how to avoid letting your
23 assumptions or bias prevent you from recognizing that
24 a particular source does not agree with you.

25 Q. Did you bring a critical awareness of

1 your own biases to your work on this report?

2 MR. SCHMUTTER: Objection. You may
3 answer.

4 Q. Can you repeat your answer?

5 A. I believe I did.

6 Q. Do you have any biases related to
7 firearms?

8 A. I generally believe that most firearms
9 regulation that is proposed is not well-thought-out.
10 The core problem of mass murder in the United States
11 is largely associated with the failure of our mental
12 health system and pursuit of the emphasis on firearms
13 for the most part is an attempt to avoid confronting
14 that more basic core problem.

15 Q. Any other biases related to firearms?

16 A. Well, I own a few.

17 Q. Any biases related specifically to
18 assault weapons?

19 A. I guess, yes, I tend to regard them as
20 a useful thing to be widely distributed among the
21 general population.

22 Q. Any biases related to large-capacity
23 magazines?

24 A. Same reason, yeah. When James Madison
25 was trying to persuade New Yorkers to ratify the

1 Constitution, one of the objections that many of the
2 Anti-Federalists had was that there was no Bill of
3 Rights in the Constitution and they were concerned
4 about the dangers of a tyrannical central government.

5 So when Madison wrote Federalist 46,
6 he explained that there was really nothing to worry
7 about because a tyrannical government -- the example
8 he gave was a president leading a standing army, but
9 it's also pretty fair to assume he met with
10 Congressional approval, would be, at most it would be
11 30,000 men, he says. And I guess these would be --
12 they would be confronting a force of near half a
13 million armed men, by which he meant the general
14 militia of the country.

15 So a clear implication of that is that
16 a well-armed population, at least roughly as well as
17 the standing army, would be able to defeat any sort
18 of a tyrannical attempt. And, of course, many of the
19 weapons that the states are attempting to ban
20 certainly fit into the category of the sort of
21 weapons that General Madison would use in response to
22 a tyrannical government.

23 Q. Do you own any large-capacity
24 magazines?

25 A. Yes.

1 Q. Would you agree, Mr. Cramer, that
2 there is a sharp political or policy divide in the
3 United States over the regulation of firearms?

4 A. I would say, yes, there is, in deed, a
5 very sharp divide.

6 Q. Do you yourself identify with one side
7 of that divide or the other?

8 A. Yes. I would say I do identify with
9 those who regard restrictive gun control laws as
10 generally not an effective method of promoting public
11 safety.

12 Q. And that would be the same side as,
13 for example, the NRA?

14 A. Yes.

15 Q. How would you identify or describe the
16 other side of the divide?

17 MR. SCHMUTTER: Objection. No
18 foundation, ambiguous.

19 THE WITNESS: Should I go ahead and
20 answer, Dan?

21 MR. SCHMUTTER: Yeah, you can answer.

22 A. There are a body of different people
23 that are in opposition to widespread gun ownership.
24 In several of the groups, there are quite a number of
25 people who have not thoroughly thought through the

1 consequences of their actions, of these sort of
2 actions. And there are people who have, maybe a
3 smaller group of general objection, which is cultural
4 in nature. They find -- they have imagined gun
5 owners as somehow an egregious sort of person, or
6 someone they cannot really trust. And as a result
7 they tend to regard serious gun bans as an effective
8 way of stomping on people they do not like.

9 Q. Do you feel that way to those people?

10 A. No, no interest in stomping on them.
11 I'm just interested in having them not pass laws that
12 have not shown to be very effective, have not shown
13 to be effective at all.

14 Q. Do you consider yourself a neutral
15 witnesses on matters concerning firearms regulation?

16 MR. SCHMUTTER: Objection. Undefined.
17 No foundation. You can answer.

18 A. What do you mean by neutral?

19 Q. Do you have any -- do you have any
20 motivation for one side of the debate or the other
21 winning out regarding a law on firearms regulation?

22 A. Yes, I definitely would prefer to see
23 laws such as the assault weapon ban and the LCM ban
24 go down to defeat in the Courts.

25 Q. And, in fact, you've been a consistent

1 opponent of LCM regulations, haven't you?

2 A. Yes, since 1989.

3 Q. Is it fair to say you've prejudged LCM
4 regulations like New Jersey's law being challenged in
5 this matter?

6 MR. SCHMUTTER: Objection. No
7 foundation. Undefined. You can answer.

8 A. I'm not sure if prejudged is really
9 quite the right word. I mean, I've looked at these
10 laws and the available evidence as to their
11 effectiveness. I've concluded that they are unlikely
12 to make any real difference in reducing mass murders
13 or violent crimes.

14 Q. Well, you said before you haven't even
15 looked at New Jersey's law that's being challenged in
16 this case. Correct?

17 A. That is correct. So is LCM defined
18 differently as in ten rounds in New Jersey's law?

19 Q. Well, the law speaks for itself. My
20 understanding, I'll represent, is that it considers a
21 large-capacity magazine a magazine that holds more
22 than ten bullets.

23 A. Okay. So in similar to the other laws
24 that my belief about its effectiveness matches what
25 other states have done or attempted to do.

1 Q. Is it fair to say you've also been a
2 consistent opponent of assault weapon regulations?

3 A. Yes.

4 Q. Is it fair to say you've prejudged
5 assault weapon regulations like New Jersey's laws
6 that are being challenged in these matter?

7 MR. SCHMUTTER: Objection. Undefined,
8 lack of foundation, ambiguous. You can answer.

9 A. I would say that I regard such laws
10 that are primarily focused on the appearance of
11 weapons as being sort of silly.

12 Q. I'm sorry. Could you explain what you
13 mean by that?

14 A. I mean laws that do not in practical
15 fact regulate guns based on their functionality do
16 not serve any useful purpose. I mean, you can
17 achieve many of the same results of an assault weapon
18 ban -- well, let me rephrase that. There are no ways
19 to limit the criminal misuse of firearms by banning a
20 particular class of semiautomatic weapons.

21 As an example, the recent mass murder
22 that took place at the school in I think it was --
23 was it in Tennessee -- the murderer carried two
24 assault weapons in with her. So, I mean, you could
25 go ahead and restrict them, but almost any of the

1 semiautomatic weapons, the 22 rifles that are
2 actually commonly possessed, and which most states do
3 not limit possession of, those are quite capable. If
4 you carry two or three of those, you can do almost,
5 just about as much damage.

6 Q. These are your opinions as an
7 historian or these are your personal opinions?

8 A. These are my personal opinions. My
9 opinions as an historian are based on the historical
10 evidence that I could find.

11 Q. But your personal opinions on assault
12 weapons and LCMs had no bearing on your expert
13 opinions as an historian in your report?

14 A. No. I think my report speaks for
15 itself in demonstrating that the claims being made by
16 the expert witnesses for New Jersey, in fact, are
17 seriously erred in that they make claims that do not
18 stand up to investigation of the source.

19 Q. So when you testified before about how
20 one's personal biases can lead one to the conclusion
21 that, you know, that they may not otherwise reach
22 independently, that is not the case for you in your
23 report?

24 A. I would say it is not. I focused, as
25 I said, primarily on examining the claims made by the

1 expert witnesses and seeing if there was, in fact,
2 any historical bases for the claims. And in many
3 cases I found claims are either inaccurate. For
4 example, Professor Spitzer's claims about magazine
5 bans that in most cases do not even regulate
6 possession or transfer of magazines of any capacity.

7 There are often laws that, for
8 example, define machine guns as a semiautomatic
9 weapon that can accept magazines above a certain
10 capacity. And, also, claims that are made by
11 Professor Roth where he attempts to justify the
12 development of firearms breach murder rates. And, in
13 fact, there are many other explanations, even in his
14 own declaration, would suggest other possible causes
15 for changes in crime rates.

16 Q. You mentioned your website
17 ClaytonCramer.com. Is there a Blog that you include
18 on that website?

19 A. There is a link to my Blog, yes.

20 Q. And that Blog includes posts going
21 from 2003 all the way through this month, August
22 2023. Correct?

23 A. Yes.

24 Q. Were all of those Blog posts made by
25 you personally?

1 A. Yes.

2 Q. Now, you've made Blog postings
3 concerning Court decisions on Second Amendment
4 challenges to laws. Correct?

5 A. Yes.

6 Q. Do you know how many such postings are
7 on your Blog?

8 A. Probably thousands.

9 Q. Thousands of postings on Court
10 decisions on Second Amendment challenges?

11 A. Certainly many hundreds. It might be
12 thousands. I've been doing this a long time.

13 Q. Would you agree that when in these
14 decisions the Court ruled that the law being
15 challenged violated the Second Amendment, your Blog
16 post would hail it as a victory?

17 A. Yes.

18 Q. And you've done this with regard to
19 many Blog posts. Correct?

20 A. Yes. A Blog is primarily a place for
21 expressing opinions. And I do my best from a
22 factual -- I look to the decisions and I quote from
23 them and explain why I think they're right or wrong.

24 Q. By why do you call them victories?

25 A. Because I think that the laws that are

1 contrary to the Second Amendment are a mistake. When
2 a law is struck down for violating the Second
3 Amendment, I consider that a victory because I think
4 that the projections that the Second Amendment
5 provides are fairly important to the valuation of a
6 free society.

7 (Exhibit 2 is marked and introduced in
8 Exhibit Share.)

9 Q. I want to show you what I have just
10 marked as Exhibit 2. It should be in Exhibit Share.
11 Do you see it?

12 A. Yes, I see it.

13 Q. Is this one of your Blog posts?

14 A. Yes, it is.

15 Q. You posted this on April 2nd, 2019?

16 A. Yes.

17 Q. And does this Blog post concern the
18 Southern District of California's decision in Duncan
19 vs. Becerra, B-e-c-e-r-r-a?

20 A. Yes.

21 Q. Now, your title for this post is, "A
22 Major victory in California," with major in italics.
23 Correct?

24 A. Correct.

25 Q. Why was this a major, in italics,

1 victory?

2 A. Because the decision basically cited
3 the California's large-capacity magazine ban was a
4 violation of the Second Amendment.

5 Q. At the bottom of this post you state,
6 "Of course the 9th Circuit will hear the appeal, but
7 Judge Reinhardt has recently been demoted to hell, so
8 who knows?" Is that correct?

9 A. Yes.

10 Q. I take it that you were anticipating
11 that the 9th Circuit Court of Appeals would reverse
12 the District Court's decision?

13 A. I thought it was a real possibility.
14 The 9th Circuit Court has historically shown little
15 sympathy for the Second Amendment in these decisions.
16 Judge Reinhardt in particular, when he was still
17 alive, often wrote some fairly unpleasant decisions,
18 decisions that I found fairly absurd.

19 In one he cited work by that Professor
20 Michael Bellesiles that I mentioned earlier, and only
21 when it was pointed out that Bellesiles had been
22 pretty well discredited as a source, the decision was
23 revised before publication, so that instead of citing
24 Bellesiles, they now copied his false footnote out of
25 his book and put that in its place.

1 Bellesiles had misrepresented a source
2 in his book and so Reinhardt's decision was rewritten
3 to copy the invalid source instead, invalid footnote.

4 Q. Is that why you wrote in this Blog
5 that Judge Reinhardt had been demoted to hell?

6 A. Well, yes, I was -- I was being sort
7 of playful. Judge Reinhardt had recently passed and
8 perhaps it was a little meaner of a tone than it
9 really should have been.

10 Q. On your Blog you also posted on
11 occasion about research projects that you were
12 working on at the time. Is that correct?

13 A. Yes.

14 (Exhibit 3 is marked and introduced in
15 Exhibit Share.)

16 Q. Just give me one second and then I'm
17 going to show you what I'm marking as Exhibit 3.

18 A. Okay.

19 Q. And let me know when you see it.

20 A. Yes, I see it.

21 Q. Is this another one of your Blog
22 posts?

23 MR. SCHMUTTER: I'm sorry, I don't see
24 it. Is there supposed to be an Exhibit 3 in the
25 Exhibit Share?

1 MR. VANNELLA: I'm sorry. Let me know
2 when you see it.

3 MR. SCHMUTTER: I don't see Exhibit 3,
4 I'm sorry.

5 THE WITNESS: You have to refresh on
6 your browser.

7 MR. SCHMUTTER: Yeah, that's what I
8 did. Thank you.

9 BY MR. SCHMUTTER:

10 Q. Is Exhibit 3 another one of your Blog
11 posts?

12 A. Yes.

13 Q. And this one is dated --

14 MR. SCHMUTTER: I'm sorry, it's not
15 loading. Wait. I'm sorry, it's not loading. I see
16 the existence of adding Exhibit 3, but it's not
17 loading for some reason, I don't know why. Let me
18 just do some refreshing, see if I can --

19 MR. VANNELLA: Give it a minute.

20 MR. SCHMUTTER: Wait, I got it. Thank
21 you.

22 BY MR. VANNELLA:

23 Q. Exhibit 3 is a Blog post dated May
24 22nd, 2012?

25 A. Yes.

1 Q. And in this post you state you, "Need
2 six to ten activists willing to commit about three to
3 four hours each to help with a research project." Is
4 that correct?

5 A. Yes.

6 Q. At the bottom of the post you ask any
7 interested persons to "tell me something that shows
8 me you are a serious gun rights person, and not part
9 of the enemy camp." Is that correct?

10 A. Yes.

11 Q. What is the enemy camp?

12 A. People that support restrictive gun
13 control laws.

14 Q. By the way, you keep mentioning
15 restrictive gun laws, or something to that effect.
16 Are there gun regulations that you would find are not
17 restrictive?

18 A. That I would find consistent with the
19 Second Amendment, yes, there are some, for example.

20 MR. SCHMUTTER: Objection to the
21 extent it calls for a legal conclusion.

22 Q. I'm not asking for his legal
23 conclusion. I'm asking of your personal view. Do
24 you understand that, Mr. Cramer?

25 A. Yes.

1 MR. SCHMUTTER: Mr. Cramer, stop for a
2 second.

3 You're still asking him for a legal
4 opinion and he's not -- there's no foundation for
5 that and he's not here to testify as to legal
6 opinions.

7 BY MR. VANNELLA:

8 Q. You agree you're not offering any
9 legal opinions whatsoever in this deposition
10 testimony or in your report, correct, Mr. Cramer?

11 A. Correct.

12 Q. Okay. So when you say gun laws that
13 are restrictive, what examples of gun laws that in
14 your view are not restrictive?

15 A. Well, they are restrictive, but they
16 are completely within the meaning of the Second
17 Amendment based on Bruen. For example, convicted
18 felons are prohibited from possession by current law.
19 And certainly I agree with those convicted of violent
20 felonies, it's probably reasonable to prohibit them
21 from firearms ownership.

22 I have some questions about those
23 convicted of nonviolent felonies. And, in fact, the
24 Courts are beginning to raise questions about whether
25 some of the disqualifiers, firearms disqualifiers.

1 And some of these categories might be questionable
2 and perhaps not defensible under the Bruen decision.

3 Q. Why do you feel that people with
4 felony convictions can be prohibited from carrying
5 firearms?

6 MR. SCHMUTTER: Objection. Calls for
7 a conclusion.

8 A. 479.1. Felony was theoretically and
9 often actually a capital offense. If a person was
10 convicted of a felony, they often did not have the
11 right to bear arms because they often do not have
12 right to breathe anymore. And so I would say that
13 it's consistent with the practice of the Colonial and
14 leading up to 479.1 that felons lost a great many
15 rights; in fact, including the right to breathe,
16 which is fairly basic.

17 In fact, many of these things that
18 were capital crimes back then are no longer capital
19 and treated generally with prison sentences, I would
20 say does not change the fact that the framers once
21 said, gee, a felon is a pretty serious criminal, this
22 is probably not someone we should trust with a
23 weapon.

24 Q. Any other laws besides that one?

25 A. I would say firearms disqualifies

1 people who are mentally incompetent will also qualify
2 as a, within the meaning of the Second Amendment, at
3 least in part because at that time people with severe
4 mental illness problems were generally not out and
5 about. There were not a lot of mental hospitals in
6 the Colonial period. In fact, I can only think of
7 one and that is Virginia, opened in 1773. At least
8 part of this was that mental illness used to be a bit
9 rare back then.

10 There's a book by Torrey, The
11 Invisible Plague, which makes a pretty strong case
12 that mental illness had become, especially
13 schizophrenia and bipolar disorder, had both become
14 more common in the period since 1750. And there
15 seems to have been relatively few people who were
16 severely mentally ill at the time and those who are,
17 are often confined in either in poorhouses, which was
18 a very poor place to put them, or in some cases if
19 they were convicted of a crime involving mental
20 illness, some colonies actually paid their families
21 to confine them pretty effectively in an insane
22 asylum for one.

23 Q. I'm sorry. Are you saying that you
24 think there can be laws that restrict ownership of
25 firearms by the mentally ill or not?

1 MR. SCHMUTTER: Objection. Same
2 objection. Calls for legal conclusions.

3 A. I would say that people who are, whose
4 mental illness is severe enough to make them a threat
5 to themselves or to others, when the Gun Control Act
6 of 1968 was passed, and several regulations came out
7 of that, at least part of the theory was, well,
8 people who are seriously mentally ill generally are
9 hospitalized against their will.

10 And, in fact, in the mid '60s, it was
11 still the case that people with serious mental
12 illness problems would more likely be involuntarily
13 committed to mental hospitals and people who had
14 been, who had pled not guilty by reason of insanity,
15 or who had been adjudicated mentally incompetent,
16 it's perfectly logical to see that these conformed to
17 the conditions before 1791. People in those
18 capacities were generally pretty well limited in what
19 rights they had. So those laws I find consistent
20 with the Second Amendment.

21 Q. So you don't view any law that
22 regulates the types of firearms or ammunition that
23 someone can own to be permitted?

24 MR. SCHMUTTER: Objection. Calls for
25 legal conclusion, no foundation, ambiguous.

1 A. I would say that the type of weapon,
2 if you look at the weapons that were commonly allowed
3 in 1791, some of them are actually pretty destructive
4 weapons. For example, a cannon are fairly
5 commonly -- they are available for sale. And there's
6 a type of ammunition called cannister shot is also
7 for sale. And anyone who fired a cannister shot out
8 of a cannon, literally, they only get one shot; that
9 one shot would kill a vast number of people.

10 And for some reason the framers of
11 these laws at the time did not make the attempt to
12 restrict these sort of weapons. Pretty clearly, the
13 framers were not so concerned about the possibility
14 of mass lethality weapons. That's why I find the
15 analogies that some people try to construct not very
16 persuasive.

17 Q. The answer to my question then is no?

18 A. I would say based --

19 MR. SCHMUTTER: Objection.

20 Mischaracterizes the record. The record speaks for
21 itself.

22 MR. VANNELLA: Court reporter, can you
23 repeat my previous question.

24 (The record was read.)

25 "QUESTION: The answer to my question

1 then is no?"

2 Q. What's your answer to that question?

3 MR. SCHMUTTER: Objection.

4 A. I would say the type of firearms and
5 the type of ammunition is really not particularly
6 relevant to what is lawful; that pretty much almost
7 any sort of serious weapon that was available then
8 would be appropriate now. And that would mean the
9 type of firearm is really not the important thing.
10 It's the sort of person that possesses that matters.

11 Q. So going back to your Blog post, would
12 you view anyone who supports or defends any such law
13 to be part of the enemy camp?

14 MR. SCHMUTTER: Objection. Ambiguous.

15 A. Enemy is a -- I mean, it's obviously a
16 rhetorical term, but, I mean, they're not enemies in
17 the sense of someone is going to come and try to kill
18 you. There are people who are political enemies,
19 people who are on the opposing side with whom you
20 disagree as to appropriate public policy.

21 Q. Well, when you say, "Tell me something
22 that shows me you are a serious gun rights person and
23 not part of the enemy camp," what sort of thing could
24 someone tell you to show you that?

25 A. If they could show me some example of

1 something that have either published or have posted
2 somewhere on a Blog that demonstrated their support
3 for gun rights; that would have been enough. I don't
4 think there's this actually came up as an issue
5 'cause I don't think I got that many responses.

6 Q. Was it like a Purity Test for you?

7 MR. SCHMUTTER: Objection. Undefined,
8 no foundation.

9 A. Basically a test to make sure that
10 someone is not attempting to seek their way into a
11 project whose motivations might have been intended to
12 disrupt.

13 Q. Do you hold any equity interest,
14 stock, or other financial stake in any company that
15 manufactures or sells firearms?

16 A. I own 200 shares of Ruger.

17 Q. Ruger is a firearms manufacturing
18 company?

19 A. Yes, they are. They pay a dividend,
20 which it might be -- might be one percent of my net
21 income if that.

22 Q. Have you ever previously held equity
23 interest, stock, or other financial stake in a
24 company that manufactures or sells firearms, other
25 than what you just said?

1 A. I did for a while own 1000 shares of
2 the company that owns Smith & Wesson.

3 Q. And how many shares did you own at the
4 time that you sold or relinquished them?

5 A. One thousand shares.

6 Q. And Smith & Wesson is a firearms
7 manufacturing company, as well?

8 A. Yes, they are. That stock paid no
9 dividends. So, at that point, I said, you know, this
10 capital perhaps would be better invested in an equity
11 mutual fund.

12 Q. Other than what we've already covered
13 in this deposition, do you have any other sources of
14 income?

15 A. I have my Social Security check and
16 just -- and, of course, my IRA, and I have something
17 that comes in from a separate account at Schwab.

18 I have, over the last 25 or 30 years,
19 I have made a fair amount money in the sale of stock,
20 in the exercise of stock options and sale of those
21 options in various high-tech companies that I work
22 for. And so there is generally a few thousand
23 dollars a year in income that comes off of those, off
24 those various holdings.

25 Q. Now, your Blog includes a PayPal

1 button for donations. Is that correct?

2 A. Yes.

3 Q. Have you ever received donations
4 through this source?

5 A. I have, a very small amount.

6 Q. How much is a small amount?

7 A. I would say probably no more than
8 about \$200 over the entire time I had that button up.

9 Q. Have you ever received money or other
10 compensation from any of the plaintiffs in these
11 matters other than your services as a rebuttal expert
12 in this case?

13 A. No.

14 Q. And just to be clear, have you ever
15 received money or other compensation from The New
16 Jersey Association of Rifle & Pistol Clubs?

17 MR. SCHMUTTER: Objection.
18 Mischaracterizes the record.

19 A. No, I have not. And to be honest with
20 you, I did not even know the organization existed
21 until this suit.

22 Q. Have you ever received money or other
23 compensation from any of its affiliate branches in
24 other jurisdictions?

25 MR. SCHMUTTER: Objection.

1 Mischaracterizes the record. No foundation.

2 A. Can you identify what those other
3 affiliates might be.

4 Q. I have no idea. So I take it that you
5 were not aware of receiving any compensation or any
6 other payment from them?

7 A. I'm not aware of any affiliates of the
8 AJRPC from whom I receive money. I could not think
9 of -- aside from the National Rifles Association, I
10 seldom receive any sort of money from any sort of
11 organization involved with guns.

12 Q. All right. We'll go to the NRA now.
13 Are you a member of the NRA?

14 A. Yes, I am.

15 Q. And you have published articles in NRA
16 publications. Is that correct?

17 A. Yes.

18 Q. About how many articles?

19 A. I would say in the dozens.

20 Q. Are you a member of any other
21 organization that is on the same side of the firearms
22 debate as the NRA?

23 MR. SCHMUTTER: Objection. Lack of
24 foundation, ambiguous. You can answer it.

25 A. California Rifle & Pistol Association.

1 Q. Okay. And you previously testified
2 that you view yourself on the same side of the debate
3 as the NRA. Correct?

4 MR. SCHMUTTER: Same objection.
5 Ambiguous, undefined.

6 A. I would say generally. NRA has a
7 history of sometimes being a little bit more willing
8 to compromise than I'm entirely thrilled with.

9 Q. So when I said the same side of the
10 debate as the NRA, you understood that that's what I
11 meant by that question?

12 A. Yes, I would say it's generally true.

13 Q. Allo right. So you mentioned, I'm
14 sorry, what was that, the California?

15 A. Rifle & Pistol Association.

16 Q. Any other organizations?

17 A. No.

18 Q. Now, you testified that you have
19 received donations or some other compensation from
20 the NRA in the past?

21 A. I wouldn't say donations. I ran for
22 State Senate some years back here in Idaho, and I
23 can't remember the formal name of the organization,
24 but they're basically the branch of the NRA that
25 raises funds for political campaigns, and it was a

1 Political Victory Fund, and they contributed a
2 thousand dollars to my campaign. But, of course, it
3 arrived after the election was over, so it was not of
4 any real value to me, so I wrote them a check from my
5 campaign back to them and said basically, thanks, a
6 little late.

7 Q. So you made a payment to the NRA for a
8 thousand dollars?

9 MR. SCHMUTTER: Objection.
10 Mischaracterizes the record.

11 A. It was a re -- I was returning \$1000
12 to the Political Victory Fund.

13 Q. Have you ever made any other payment
14 or contributions to the NRA?

15 MR. SCHMUTTER: Objection.
16 Mischaracterizes the record.

17 A. Membership dues.

18 Q. Okay. How much were those?

19 A. Typically they were 25, sometimes \$35
20 a year. There has been some increases in dues in the
21 last few years.

22 Q. How long have you been a member of the
23 NRA?

24 A. 1982. When I purchased my first
25 firearm, there was an NRA membership card in the box

1 from Colt. And while I had no strong opinions about
2 NRA, I thought, you know, this sounds like an
3 organization that might be good to join because they
4 are defending gun rights.

5 Q. Were they requiring dues payment from
6 beginning in 1982 all the way through to the present?

7 A. Yes.

8 Q. And have you paid dues every year from
9 1982 to the present?

10 A. Yes.

11 Q. Have you ever received any money from
12 the NRA other than what you previously testified to?

13 A. Well, they pay me for articles they
14 publish in their magazines.

15 Q. Do they pay you for every article that
16 you publish?

17 A. Yes.

18 Q. And how much do they pay you for that?

19 A. Well, it varies depending on the
20 length of the article. Also, articles that appear on
21 their web page only pay quite a bit less. In the
22 last few months, I received \$400 for an article that
23 appeared on their online service. I just received a
24 thousand dollar check from for an article that
25 appeared in America's 1st Freedom in the last month

1 or two.

2 Q. How much have you received in total
3 for your, all of your articles that you've published
4 with the NRA?

5 A. I know it's less than \$10,000. I'm
6 not sure how much less it is. I'm pretty sure it's
7 more than a thousand.

8 Q. A thousand total for all of your
9 articles together?

10 A. Yes.

11 Q. Has any of your research been funded
12 by the NRA?

13 A. My current research project is a
14 Comprehensive History of Mass Murder in America and
15 they have been funding that since 2019.

16 Q. And how much have they funded for that
17 to date?

18 A. I have to look it up. I would say
19 it's probably in the nature of 25 to \$30,000.

20 Q. Has any of your other prior research
21 been funded by the NRA?

22 A. No. Actually, I take that back. When
23 I was helping with the writing of amicus briefs for
24 DC vs. Heller, while I had not expected it in
25 advance, they did go ahead and pay me several

1 thousand dollars for the work I had done on that.

2 And my second book For The Defense of
3 Themselves and the State, in sort of an indirect way
4 I suppose you could say that they funded it. They
5 bought I think it was 2500 copies of the book and
6 distributed it to libraries around the country.

7 Q. And when was that book published?

8 A. 1990 -- 1994 I think. Maybe '92.
9 When you write enough books, it's hard to keep all
10 the publication dates straight.

11 (Exhibit 4 is marked and introduced in
12 Exhibit Share.)

13 Q. I just shared what I've marked as
14 Exhibit 4, and if both you and Mr. Schmutter can
15 confirm when you're able to open it, let me know.

16 MR. SCHMUTTER: Okay, I have it.

17 Q. Do you have it, Mr. Cramer?

18 A. Yes.

19 Q. Is this another post from your Blog on
20 your website?

21 A. Yes.

22 Q. And this is dated March 4th, 2016?

23 A. Yes.

24 Q. And in this post you state, "NRA is
25 paying me to time travel to 1919 North Carolina.

1 It's ugly there, but finding truth has its risks."

2 Is that correct?

3 A. Yes.

4 Q. Is this referring to a research
5 assignment that the NRA is paying you for, or was
6 paying you for?

7 A. I believe this was for an article.

8 Q. Okay.

9 A. I was researching the development of
10 North Carolina's permit to purchase pistols law,
11 which appears to have been passed for the purpose of
12 disarming Blacks and poor Whites.

13 Q. So by article, you mean what you
14 testified to before about articles that were
15 published in NRA publications?

16 A. Right.

17 Q. So you had just mentioned the DC vs.
18 Heller case. Did you work on an amicus brief on
19 behalf of the NRA?

20 A. Not NRA, but a group called Academics
21 from the Second Amendment.

22 Q. And what is that group?

23 A. That was a group of largely law
24 professors who had gotten together for the purpose of
25 writing briefs to defend gun rights.

1 Q. And they were in opposition to the law
2 that was being challenged in Heller?

3 A. Yes.

4 Q. How much compensation did you receive
5 for your work on that amicus brief?

6 A. I believe it was about a few thousand
7 dollars.

8 Q. Did you work on any other briefs in
9 the DC vs. Heller case?

10 A. No.

11 Q. And Heller is spelled H-e-l-l-e-r.

12 I don't remember if I asked you this,
13 Mr. Cramer. Do you personally own any -- I didn't
14 ask you this -- you testified before that you
15 personally own large-capacity magazines. Is that
16 correct?

17 A. Yes.

18 Q. Do you personally own any magazines
19 that carry more than ten rounds?

20 A. Yes.

21 (NOTATION OF INSTRUCTION NOT TO ANSWER.)

22 Q. How many rounds of ammunition do you
23 possess?

24 MR. SCHMUTTER: Objection. Objection.
25 That's an issue of confidentiality. I'm going to

1 direct him not to answer your question.

2 Did you ask him how many rounds of
3 ammunition does he possess?

4 MR. VANNELLA: I did.

5 MR. SCHMUTTER: Yeah, I'm directing
6 him not to answer that question.

7 MR. VANNELLA: I'm going to be
8 introducing what I'm going to mark as Exhibit 5 and
9 let me know when both you and Mr. Schmutter, when you
10 receive it.

11 (Exhibit 5 is marked and introduced in
12 Exhibit Share.)

13 MR. SCHMUTTER: I did.

14 BY MR. VANNELLA:

15 Q. Exhibit 5, is this another one of your
16 Blog posts, Mr. Cramer?

17 A. Yes, it is.

18 Q. It's dated December 8th, 2015?

19 A. Correct.

20 Q. The last sentence of your post reads,
21 "The more I read of these progressive comments
22 justifying 'unorthodox procedures' in time of war,
23 the more I am glad I have 10,000 rounds stockpiled."

24 Did I read that correctly?

25 A. Yes.

1 (NOTATION OF INSTRUCTION NOT TO ANSWER.)

2 Q. Were you being accurate when you wrote
3 at that time that you had 10,000 rounds stockpiled?

4 MR. SCHMUTTER: Objection. I'm
5 directing him not to answer the question on grounds
6 of confidentiality.

7 Q. This is a published Blog that we've
8 been asking questions about; is that correct, Mr.
9 Cramer?

10 A. Yes.

11 Q. Mr. Cramer, when were you first
12 contacted on potentially serving as an expert witness
13 in these matters?

14 A. Many months ago. I'm sure Dan will
15 probably be able to tell you that. Or was it last
16 year.

17 Q. I'm sorry.

18 A. Or was it last year. I'm not sure.
19 Yeah, all these cases sort of blend together.

20 Q. Well, if you don't -- if you don't
21 know the answer for sure, then just tell us that.

22 A. I'm not sure.

23 Q. Okay. Thank you.

24 When did you form the opinions that
25 you are offering in this report?

1 A. About the validity, the
2 constitutionality of LCM bans and assault weapon
3 bans, or the details that are actually in the report
4 itself?

5 Q. Well, is there a difference?

6 A. Yes, there is.

7 Q. Well, I'm asking about the opinions in
8 your report itself.

9 A. Okay. I would say that I formed those
10 opinions when I first started to write rebuttals to
11 these declarations, which appeared almost identical
12 in form in multiple cases across the country. Most
13 of your experts recited the same materials with very
14 slight differences. Often, you know, I find the same
15 paragraphs everywhere.

16 Q. Mr. Cramer, I appreciate your
17 assessment, but I'll ask that you just answer the
18 question that I'm asking and --

19 A. Okay.

20 MR. SCHMUTTER: He is answering your
21 question.

22 Q. My question --

23 Could you -- can you read -- court
24 reporter, can you repeat my last question that I had
25 asked Mr. Cramer.

1 (The record was read.)

2 "QUESTION: Well, I'm asking about the
3 opinions in your report itself."

4 MR. VANNELLA: Okay.

5 MR. SCHMUTTER: Yeah, he answered that
6 question.

7 Q. Right. I didn't ask you about any
8 other experts, did I, Mr. Cramer? I'm asking about
9 your opinions in your report. Correct?

10 A. The rebuttal is a rebuttal to opinions
11 expressed by these experts that in many cases I have
12 seen now for eight or nine months, and so in many
13 cases I would say that I formed these opinions in
14 some cases some months ago based on the fact that on
15 the arguments that they're presenting in your case in
16 particular.

17 Q. So some months ago is your answer?

18 MR. SCHMUTTER: Objection. The record
19 speaks for itself.

20 Q. You can answer the question.

21 A. Well, basically, individual components
22 of this rebuttal represent opinions that I had formed
23 as a result of reading previous versions of these
24 declarations. So in a sense, while this combination
25 of materials is basically, was written at the time it

1 was signed, much of this material has appeared
2 previously and I have created opinions in the past.

3 Q. Did you form your opinions in your
4 rebuttal report before you read the reports that the
5 experts in this case have submitted?

6 A. I formed my opinions from reading
7 essentially identical reports produced by these
8 experts in other cases.

9 Q. But not these reports themselves?

10 MR. SCHMUTTER: Objection. Objection.
11 Record speaks for itself. It mischaracterizes his
12 testimony.

13 Q. You can answer my question.

14 MR. SCHMUTTER: You can answer.

15 A. Okay. The opinions expressed in these
16 reports I was rebutting appear in essentially
17 identical form in other places and so in most cases
18 what I'm doing is I'm taking the claims that are made
19 here, are the claims that were made previously, and
20 so my response to those opinions is going to be the
21 same as it was six months ago, unless they could
22 provide some clear evidence that distinguishes the
23 opinions they expressed here from the previous
24 opinions that they've expressed.

25 Q. Did you see any -- did you -- was it

1 relevant to you at all that the laws that are being
2 challenged in these cases are different than the laws
3 that are being challenged in other cases because
4 these laws are New Jersey laws and not Oregon's laws
5 or California's laws or some other state's laws?

6 MR. SCHMUTTER: Objection.
7 Mischaracterizes the record and no foundation. You
8 can answer it.

9 A. I would say that the arguments that
10 are presented are, in fact, not tied to New Jersey
11 laws at all. In most cases these arguments that they
12 are making are arguments about historical record
13 that doesn't matter whether they're in New Jersey,
14 Illinois, or Delaware. They're making the same
15 arguments each time and they're not tied to the laws
16 in question.

17 The claims about handgun, advancement
18 of handgun technology and murder rates have no
19 applicability to the New Jersey law. I mean, they're
20 really claims that they're making about firearms
21 technology advancing the murder rates.

22 Q. Well, when you were talking about
23 handguns, which expert's report in these cases are
24 you referring to?

25 A. Roth.

1 Q. How long did it take you to prepare
2 your rebuttal report?

3 A. Let me take a look here.

4 MR. SCHMUTTER: Objection. Ambiguous.
5 You can answer.

6 A. I'm looking at my spreadsheet to find
7 the -- it looks like 24 hours. I work very quickly.

8 Q. By twenty-four hours, you mean you
9 spent 24 hours total, or you did it over the course
10 of 24 hours?

11 A. I meant that I spent 24 hours total.

12 Q. And what did you review in preparation
13 of this report?

14 MR. SCHMUTTER: Objection. The report
15 speaks for itself.

16 A. I reviewed the State's brief, I
17 reviewed the Klarevas declaration, and I reviewed the
18 Charles declaration.

19 Q. I'm sorry. What was the last thing
20 you said?

21 A. Charles.

22 Q. Charles?

23 A. Patrick J. Charles. You don't
24 recognize his declaration?

25 Q. I'm sorry, I may not be hearing what

1 you're saying.

2 A. Patrick J. Charles. I know I did a
3 rebuttal for that. Do you not recognize that name?

4 Q. No, I don't.

5 A. In that case, I guess I devoted 19
6 hours to this.

7 Q. Okay. Was there anything else you
8 reviewed in preparation of your report?

9 A. No.

10 Q. Were there any materials that you
11 would have liked to have reviewed, which you were not
12 able to review in the preparation of this report?

13 A. No.

14 Q. Did you consult with anyone in the
15 preparation of your report?

16 A. Only to the extent my friend Dave
17 Golden looked over my report for typos and bad
18 numbering and that sort of thing.

19 Q. In the course of preparing your report
20 or your testimony today, did you conduct any tests or
21 experiments?

22 A. Not during this period, no.

23 Q. Do you plan on conducting any tests or
24 experiments in the future course of this matter?

25 A. No. In the past I have -- I've done

1 experiments with the penetration of common pistol
2 cartridges through sections of wall, sort of walls
3 that are common in building of houses at least in
4 this part of the country.

5 Q. But you're not planning to conduct any
6 tests --

7 A. No.

8 Q. -- of that sort for this matter?

9 A. No.

10 Q. Have you prepared any exhibits or
11 other demonstrative evidence for your testimony in
12 this matter?

13 MR. SCHMUTTER: Objection. The report
14 speaks for itself. You can answer.

15 A. Well, if you don't mind, I would be
16 quite happy to share if you can show me how to do
17 that, an ad for cannons and canister shot for sale.

18 Q. Well, maybe we can get back to that
19 later.

20 A. Okay.

21 Q. I have a few more questions, by the
22 way, and maybe it would be a good time to take a
23 break, but I hear what you're saying.

24 So you testified that you're holding
25 yourself out as an expert in these matters in the

1 history of firearms and LCM capacity. Is that
2 correct?

3 A. Yes.

4 Q. What qualities you to offer expert
5 opinions on that subject area?

6 MR. SCHMUTTER: Object to the extent
7 it calls for a legal conclusion or the legal
8 definition of expert.

9 Q. I'll rephrase.

10 What in your prior education or
11 experience do you rely on when you hold yourself out
12 as an expert in that subject area?

13 MR. SCHMUTTER: Same objection. You
14 can answer it.

15 A. Thirty years of research into this
16 subject, 30 years of reading Court decisions and
17 documents associated with the period about firearms
18 regulation. I've been doing this since 1989, reading
19 documents and writing papers and writing books,
20 looking at the history of this and looking at the
21 effects of various laws on high crime rates.

22 Q. You also testified previously that in
23 these matters you are holding yourself out as an
24 expert on the history of mass murder. Is that
25 correct?

1 MR. SCHMUTTER: Objection. Same
2 objection to the extent it calls for a legal
3 conclusion. You can answer.

4 A. Yes, I've gathered information on
5 about 2000 mass murders in the period from the
6 Colonial period and up to this point I am in 1961.
7 I'm trying to catch up with my research assistant,
8 who has been searching newspapers for incidents, and
9 he's a decade or two ahead of me in terms of feeding
10 me newspaper articles, which I then read and evaluate
11 and add to the database as seems appropriate.

12 Q. And is that your prior experience that
13 you rely on when you hold yourself out as an expert
14 on the history of mass murder?

15 MR. SCHMUTTER: Same objection.

16 A. Yes, I have a tremendous amount of
17 information that I have garnered from doing this
18 research. What's interesting to me is that until the
19 1920's mass murder was seldom done with guns, it's
20 usually done with axes, hammers, poison, derailing
21 trans, arson, explosives.

22 Q. So mass murder caused by firearms is,
23 in your opinion, something that has only come to be
24 since the 1920s?

25 A. It becomes more common starting in the

1 1920s, although even today there's still about a
2 quarter of mass murders in the United States are
3 committed with non firearms. Those tend not to get
4 much press coverage.

5 Q. In your rebuttal report you discuss
6 the relationship between mental illness and mass
7 murder. Correct?

8 A. Yes.

9 Q. And earlier in your deposition you
10 referenced mental illness. Is that correct?

11 A. Yes.

12 Q. When you refer to the relationship
13 between mental illness and mass murder in your
14 report, are you offering expert opinions on that
15 subject area?

16 A. I would not say that I'm offering
17 expert opinions, but I do point to a number of
18 experts who have studied this problem.

19 Q. Well, if they don't constitute what
20 you would consider to be your expert opinion, why do
21 you include that in your rebuttal report?

22 MR. SCHMUTTER: Objection to the
23 extent it calls for a legal conclusion. You can
24 answer.

25 A. I would say to the text extent that

1 these are secondary sources that I am relying upon,
2 but also I'm relying on the data that I've obtained
3 from studying these mass murders in the past, which
4 about at least a third of which are mental illness
5 related.

6 Q. So I'm clear, you don't hold a medical
7 degree. Correct?

8 A. No.

9 Q. You don't have any formal medical
10 training or education. Correct?

11 A. No.

12 Q. You don't have any formal psychiatric
13 training or education. Correct?

14 A. No.

15 Q. And you are not authorized to diagnose
16 people with mental illness. Correct?

17 A. Correct, in the cases that I was
18 referencing.

19 Q. Are you mentioning mental illness in
20 your report as an expert on history?

21 A. Yes.

22 MR. SCHMUTTER: Objection to the
23 extent it calls for a legal conclusion. You can
24 answer.

25 A. Yes.

1 Q. What qualifies you -- as an historian,
2 what qualities you to offer statements in your report
3 on mental illness?

4 A. Well, when a person murders their
5 children and explains the reason for that is that
6 they were expecting the Chinese Army to arrive the
7 next day to torture their children to death; that's a
8 pretty good indication -- this was in Washington
9 State -- that's a pretty good indication something is
10 not quite right. And according to the newspaper
11 article, her neighbors also said she had never been
12 quite right in the head. And the reporter who
13 covered the story indicated that when she interviewed
14 this woman at the hospital, she was incoherent, her
15 statements made no sense.

16 Other incidents where mental illness
17 clearly played a part. One was a guy who had just
18 been released from a mental hospital and went home
19 and beat to death his four children, and then he
20 climbed the rafters of the barn, put a rope around
21 his neck, stabbed himself, and threw a burning torch
22 into a bale of hay to make sure that he was either
23 going to die by knife, by hanging, or by fire. I
24 would call that a pretty persuasive argument that
25 there was something not quite right in his mental

1 health.

2 Q. But as an historian, what relevance
3 does that have on the work that you do?

4 A. The relevance it has is that an awful
5 lot of the mass murder problem in the United States
6 is clearly tied to mental illness.

7 For example, I could give you many,
8 many examples of mass murders that have been
9 committed in the last of couple decades where mental
10 illness was clearly a factor.

11 The shooters in the Parkland case had
12 told police when he was first arrested that voices
13 told him to do it and it also told him to kill
14 himself. Most people when they hear voices telling
15 them to do something, that's usually not a sign that
16 they're mentally healthy.

17 The guy who started the entire Assault
18 Weapons Ban process committed a mass murder in
19 Stockton in 1989 and the California Department of
20 Justice did its own report on it. He had been
21 involuntarily committed for mental illness at one
22 point. He had had a spotty record and they
23 considered that this was one of these things where
24 this tragedy could have been avoided if he had had
25 adequate treatment, but they wanted to say that the

1 taxpayers are not willing to spend the money for
2 mental health treatment.

3 Q. Right. So as an historian you
4 research articles or historical sources that detail
5 events like this, you find that qualifies you to give
6 opinions on the connection between mental illness and
7 mass murder?

8 MR. SCHMUTTER: Objection. The record
9 speaks for itself. You can answer.

10 A. I would say the research that I've
11 done, both the secondary sources on the subject has
12 been, I would say, I've gleaned evidence to draw
13 conclusions from that data.

14 I would also mention I've written a
15 book which examines the history of mental health
16 treatment in the United States and that has also
17 driven some of my interest and opinions on the
18 subject.

19 Q. Was that book about a family member of
20 yours?

21 A. Yes, it was.

22 Q. It was your brother?

23 A. My brother Ron, yes.

24 Q. And your brother Ron had experienced
25 mental illness?

1 A. Yeah, he had a schizophrenic breakdown
2 when he was in his mid 20s and stayed in the United
3 States throughout his life.

4 Q. Has your own personal experience in
5 mental illness influenced at all your statements in
6 your report on this issue?

7 A. I would say it made me aware of the
8 extent to which mental illness plays a factor and
9 causes people to do the things they do. My brother
10 would sometimes attack complete strangers out in
11 public, people he had no knowledge of. And when he
12 would try to explain his reasons for it, they made no
13 sense. He attacked one couple and his explanation to
14 the police was, she was talking about her nipples.

15 Q. You mentioned that you research, you
16 know, events that -- well, strike that.

17 Your report talks about the
18 relationship between mental illness and mass murder.
19 Correct?

20 A. Correct.

21 Q. Did you complete any research on the
22 correlation between mental illness and crimes other
23 than murder?

24 A. I have read some material on the
25 subject which indicates that violent crimes in

1 general is positively correlated with severe mental
2 illness.

3 Q. What about nonviolent crimes?

4 A. I do not recall reading much about
5 that subject. I mean, I would expect their probably
6 is some connection there, but nothing I can point to.

7 Q. If as you state there is some
8 relationship between mental illness and those who
9 commit a murder, or even violent crimes in general,
10 would you advocate that laws that criminalize those
11 acts be abolished?

12 A. No, I would argue that the system we
13 had in place in the 1960s, while it was not always
14 perfect, in some states had some deficiencies in due
15 process, I would say that the idea that people who
16 are severely mentally ill and represent a threat to
17 themselves or others probably do -- involuntary
18 commitment is probably a good first step towards
19 figuring out what to do next.

20 See, I'm old enough to remember when
21 cities were not filled with homeless people. And, of
22 course, many of the people that are homeless are
23 mentally ill.

24 Q. Would you agree at least that whether
25 laws regarding the treatment of mental illness can be

1 given greater focus as a policy matter does not in
2 itself prove that laws regulating firearms are
3 ineffective?

4 MR. SCHMUTTER: Objection. I don't
5 know where to start with this one. There's no
6 foundation. It's objection relevance. Objection
7 outside the scope of his report and his testimony and
8 inconsistent with the record. You can answer.

9 A. I would say that they truly are a
10 separate issue, but one of them underlies the other.
11 I mean, if we're just dealing with people who are
12 severely mentally ill that are out in the street
13 produces the number of people who commit mass
14 murders, I would say that a firearms regulation might
15 be less useful than going to the core problem, which
16 is seriously mentally ill people who are not able to
17 make sensible decisions.

18 Q. We had briefly covered this before,
19 but just for the sake of completeness I'm going to
20 ask you which defense experts you are specifically
21 addressing in your rebuttal report. Are you aware
22 that there have been nine affirmative experts offered
23 by the defense in these matters, Mr. Cramer?

24 MR. SCHMUTTER: Objection. Compound
25 question. Multiple questions.

1 MR. VANNELLA: There was one question.

2 MR. SCHMUTTER: The report speaks for
3 itself.

4 MR. VANNELLA: There's one question.

5 MR. SCHMUTTER: No, there's two
6 questions. Can you rephrase it. It's up to you.

7 Q. I'll ask it again.

8 Are you aware that there are nine
9 experts that the defense has proffered in these
10 matters, Mr. Cramer?

11 A. I see I rebutted Cornell, Klarevas,
12 Roth. It seems to be the three that I rebutted.

13 Q. So are you offering any rebuttal
14 against Lucy Allen?

15 A. No.

16 Q. Are you offering --

17 A. I don't think I read hers.

18 Q. I'm sorry?

19 A. I do not think that I read her report.

20 Q. Are you offering any rebuttal to
21 Stephen Hargarten?

22 A. No.

23 Q. Are you offering any rebuttal to
24 Daniel Webster?

25 A. No.

1 Q. Are you offering any rebuttal to James
2 Yurgealitis?

3 A. No.

4 Q. Did you testify before that you are
5 offering rebuttal to Robert Spitzer?

6 A. I thought I put a rebuttal in on him,
7 as well. I guess not. I'm not seeing it.

8 Q. Okay.

9 A. It's been some months since I wrote
10 this and, as I said, I see the same experts appearing
11 in multiple cases.

12 Q. So you agree you are not offering
13 rebuttal against Robert Spitzer in these cases?

14 A. No.

15 Q. Are you offering any rebuttal to
16 Dennis Baron?

17 A. No. I've read his stuff in other
18 cases, but no, no rebuttal in this one.

19 MR. VANNELLA: Okay. I think at this
20 point we can take a break for lunch, if that works
21 for everyone, maybe a half hour.

22 MR. SCHMUTTER: Yeah, that's fine.

23 MR. VANNELLA: Come back at one
24 o'clock or one o'clock Eastern Time.

25 MR. SCHMUTTER: Sure.

1 THE WITNESS: Sure.

2 MR. VANNELLA: All right. Thank you,
3 everyone.

4 (A luncheon recess is taken at 12:25
5 p.m.; resuming at 1:05 p.m.)
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AFTERNOON SESSION

(1:05 p.m.)

BY MR. VANNELLA (CONT'D):

Q. Back on the record. Mr. Cramer, during the break did you have a chance to review Exhibit 1 in its entirety?

A. Yes, I did.

Q. And having done that, can you say -- can you agree that this is a complete and accurate copy of the rebuttal report that you submitted to Mr. Schmutter in this matter?

A. Yes, it is.

Q. Thank you.

In general and not specific to your work on the rebuttal court in these matters, what historical periods has your research focused on?

A. In general, the -- you're referring I think not just to this particular work, but generally I've everything I've cited in terms of history. I have done a lot of reading in the Colonial period and the Early Republic. It's a little bit more scattered, but the work I've done on mass murder project exposes a lot of interesting stuff, interesting tidbits in the period after the Civil War.

1 Q. When you say Early Republic, what does
2 that mean to you in terms of say years?

3 A. Early Republic refers to the period
4 between 1789 to 1846 when the Mexican War starts.

5 Q. Why has your research focused on those
6 particular historical periods that you mentioned?

7 A. Partly because it interests me and
8 partly because a lot of work I did for a Master's
9 thesis was for the period of the Early Republic.

10 Q. Now, in your rebuttal report you refer
11 to primary sources and secondary sources. Correct?

12 A. Correct.

13 Q. What do you mean by primary source?

14 A. Again, I believe I answered this
15 earlier, but a primary source is any source that was
16 written at the time that people were actually
17 present, or there were accounts by people that time;
18 for example, newspaper articles published about it
19 accounts for primary sources until our -- things
20 written by people that lived them; for example,
21 diaries, books, those are all primary sources.

22 Q. And what then are secondary sources?

23 A. Secondary sources are books or
24 articles written more recently by people interpreting
25 the meaning of usually primary sources. Although I

1 noticed in some of the expert declarations that your
2 people were relying on what I consider tertiary
3 resources. They were relying on sources that looked
4 back on secondary sources and then looked back at the
5 primary sources.

6 In some cases your experts seem to be
7 relying on the Duke University Repository of
8 Historical Firearms Laws, which is not a very
9 accurate source.

10 Q. Did you ever Blog about that
11 repository in your Blogs?

12 A. I'm not sure. I probably have Blogged
13 about it. I've written articles for America's 1st
14 Freedom about the problems with the repository and
15 how in some cases it references laws that if we go
16 look at the session laws they're not there, or they
17 exist or they're not in that location.

18 Q. Do you recall writing a post about a
19 week ago about the Duke repository?

20 A. I might have done so. I suspect I
21 did, yes.

22 Q. Do you recall referring to them as the
23 Duke trash repository?

24 A. Yes. It's not done in the standards
25 that I would expect of a serious scholar, certainly

1 not of a law school.

2 Q. Do you consider it scholarly to refer
3 to a law school's repository as trash?

4 A. When it is trash, yes. When it
5 references things that do not exist, or when it
6 mischaracterizes. At one point, I was looking for
7 laws relating to references to disqualifiers for
8 minors. Under the category of those disqualified
9 included laws that prohibited Indians from possessing
10 firearms, they made no reference at all to minors.

11 Q. If I understand your testimony for
12 what secondary sources mean, that would include
13 articles and academic journals?

14 A. Yes.

15 Q. And it would include academic books?

16 A. Yes.

17 Q. Is it your position that historians
18 should not rely on secondary sources at all?

19 A. Secondary sources should be used for
20 two purposes, one if the primary source is not
21 readily available and that is sometimes the case
22 where a lot of these documents from the Colonial
23 period you may not be able to directly access these
24 documents. So quoting them from a secondary source
25 is an acceptable practice.

1 Also, secondary sources reflect the
2 assumptions, the biases of the person who wrote the
3 article, and that may or may not be an accurate
4 description of the way things were.

5 Q. Would you agree though that relying on
6 secondary sources does not in itself automatically
7 disqualify an historian's work?

8 A. I would agree, it does not
9 automatically disqualify it.

10 Q. And there are in your view at least
11 some circumstances where an historian can
12 appropriately rely on secondary sources?

13 A. Absolutely.

14 Q. And, in fact, your own rebuttal report
15 cites the secondary sources, doesn't it?

16 A. Yes, it does.

17 Q. And are the secondary sources that you
18 cite in your own report free from flaw?

19 A. That is an interesting question. If I
20 was aware that they had flaws, I would not have cited
21 them. In some cases I have actually looked up the
22 primary sources that are cited by the secondary
23 sources and verified that they have accurately
24 represented them.

25 Q. And some of the secondary sources you

1 cite in your report are your own prior articles and
2 books that you yourself have authored. Correct?

3 A. In a few cases, yes.

4 Q. So these are not flawed?

5 A. Well, obviously, I don't think they're
6 flawed or I wouldn't have written them -- I wouldn't
7 cited them.

8 Q. Do you believe that it is ever
9 acceptable for an historian to rely on secondary
10 sources when describing the meaning of a law as it
11 was understood at the time that it was in effect?

12 A. The secondary source is not -- for
13 example, a newspaper account of 1791 or 1789
14 describing how a particular opposition of the
15 Constitution was understood, that would be a primary.
16 If it was someone's interpretation of it written four
17 years later, that's a secondary source.

18 Q. Can an historian rely on Court
19 opinions that cite to primary sources to provide
20 historical context in the opinions?

21 MR. SCHMUTTER: Objection. Ambiguous,
22 lack of foundation, calls for speculation.

23 Q. Is a Court opinion a secondary source
24 if it is citing to the primary sources?

25 A. It is a primary source if the

1 objective is to discuss or examine how a law was
2 interpreted by a Court. You're asking me what the
3 Court says. The Court may, in fact, be relying on
4 invalid sources, and it may reference some primary
5 sources that are, in fact, incorrect. As a source
6 for the, how the Court has interpreted something,
7 that is a primary source.

8 Q. But if a Court opinion is quoting
9 from, say, a newspaper article or a book from a
10 hundred years prior to the date of the Court opinion,
11 wouldn't that make the Court opinion a secondary
12 source in that regard?

13 A. In that regard, yes. In terms of what
14 the Court considered to be the law or believed it to
15 be, that would definitely qualify as the primary
16 source, but if you're relying on a quote from that
17 decision to figure out what had actually happened or
18 the meaning of something, that would be a secondary
19 source.

20 Q. So would an academic article that is
21 citing to primary sources to reach a conclusion on
22 what the meaning of the law was at the time also be a
23 primary source then, or would it be a secondary
24 source?

25 A. It would be a secondary source. It

1 could be a primary source is what Saul Cornell
2 thinks, but it would be definitely a secondary
3 source.

4 Q. Well, why would a Court opinion that
5 does the same thing be a primary source?

6 MR. SCHMUTTER: Objection.
7 Mischaracterizes the record and his testimony.

8 Q. Was that not your testimony?

9 A. What I said was if a Court opinion
10 would be a primary source for understanding how the
11 Court's interpreted the meaning of something. That
12 does not necessarily mean that their use of a primary
13 source is correct.

14 Q. Section II of your rebuttal report
15 concerns your rebuttal of Professor Cornell's report.
16 Is that correct?

17 A. Hang on. Let me bring -- bringing
18 that up right now. Okay. Where are we? Okay.

19 Q. Section II. Let's see what page that
20 is. Starting I think on, yeah, on page one of your
21 report, page two of the pdf.

22 A. Okay.

23 Q. Section II is entitled, "Saul
24 Cornell." Correct?

25 A. Yes.

1 Q. So is Section II the part of your
2 report that addresses your rebuttal of Professor
3 Cornell's report?

4 A. Yes.

5 Q. Did you review Professor Cornell's
6 report that he submitted specifically for these
7 matters?

8 A. Yes, I did.

9 Q. When did you review his report?

10 A. When I was writing this rebuttal.

11 Q. How long did you spend reviewing this
12 his report?

13 A. Hang on. Yeah, let me take a look,
14 see how many hours I spent. I'm not entirely sure,
15 but Cornell's stuff does appear long, so I'm sure I
16 spent probably at least five or six hours on it.

17 Q. On page one of your report, which is
18 where we are, you claim that Professor Cornell's
19 report "demonstrate or demonstrates a limited
20 knowledge of the Colonial period and legal history."
21 Is that correct?

22 A. Yes.

23 Q. Do you consider Professor Cornell to
24 be an authority on American history?

25 MR. SCHMUTTER: Objection. No

1 foundation and no definition and ambiguous. You can
2 answer.

3 A. I am pretty convinced to the extent
4 that he is an authority on the subject, it is not
5 showing up in the work that he did, including in the
6 expert declaration. Some of the statements he makes
7 are pretty fundamental.

8 Q. My question was just do you consider
9 him to be an authority on American history?

10 MR. SCHMUTTER: Same objection.

11 A. I have absolutely no opinion about his
12 historian as -- authority as an expert on Colonial
13 history. All I know of him is from his work he's
14 done on this stuff and that has not impressed me in
15 the least.

16 Q. Have you ever posted any Blogs about
17 Professor Cornell specifically?

18 A. I might have.

19 Q. Do you recall doing so earlier this
20 year with regard to a Hawaii case that you were both
21 working on?

22 A. I might well have.

23 Q. Okay. Do you recall in that post
24 referring to Professor Cornell's declaration as
25 "crap"?

1 A. Yep.

2 Q. Do you consider it scholarly to
3 describe another history professor's report or
4 declaration as "crap"?

5 A. I would not do that in a published
6 article, that's for sure. My opinion though is that
7 his work here is really careless and sloppy and often
8 quite wrong. And, yes, it is crap.

9 Q. And was that the opinion of Professor
10 Cornell's report that you had leading up to your
11 actually review his report in this case?

12 A. I have read several different expert
13 declarations that he's filed and they make the same
14 false claims repeatedly, or at least carelessly,
15 poorly thought-out claims.

16 Q. Did you have any opinions of his
17 report in these cases before you actually reviewed
18 it?

19 A. Yes. I said, oh, I'm going to see the
20 same crap I always do with him, and it turned out I
21 did, I saw in many cases word for word the same
22 errors.

23 Q. Is it your opinion that if a right was
24 codified in a State Constitution, then all aspects of
25 the common law were effectively nullified?

1 MR. SCHMUTTER: Objection. Calls for
2 a legal conclusion and the report speaks for itself.

3 Q. Let me ask you this, Mr. Cramer: Are
4 you offering any opinions in your rebuttal report on
5 the common law?

6 A. I am offering opinions on how Cornell
7 has interpreted the common law.

8 Q. Okay. And are you offering opinions
9 on how Professor Cornell interpreted State
10 Constitutions?

11 A. I think I do make some reference to
12 his -- I think he does make some reference to
13 Pennsylvania's Constitution that I took some
14 exception to.

15 Q. Right.
16 And are you offering opinions to rebut
17 his on the relationship between State Constitutions
18 and the common law?

19 A. Well, just the State Constitution
20 because it comes after the point, where, for example,
21 the case in Pennsylvania, they go ahead and say that
22 the common law is in effect "until the said laws or
23 acts of general assembly respectively, shall be
24 repealed or altered."

25 So basically they're saying that if

1 some later law overrides the common law as it was in
2 effect in 1776, the later law takes precedence.

3 Q. So directing you to page four of your
4 report.

5 A. Okay.

6 Q. "Clearly, only some," in italics,
7 "parts of English law were common with Massachusetts
8 law. Where Massachusetts law had differed, English
9 law was no longer valid."

10 A. Yes.

11 Q. You're talking about the Massachusetts
12 State Constitution?

13 A. Actually, it would include
14 Massachusetts Constitution and its laws, statutes.

15 Q. So to the extent that rights were
16 codified in the Massachusetts State Constitution, is
17 it your opinion that all aspects of the English
18 common law were effectively nullified?

19 A. If they were in conflict with it, yes.

20 Q. What's the basis for that opinion?

21 A. A State Constitution is the underlying
22 legal framework for all the laws of the state and
23 when the revolutionaries went ahead, most State
24 Constitutions, they were often creating structures
25 that were utterly different from the English

1 government, English system.

2 Q. Are there any other sources
3 specifically that you're relying on in support of
4 that opinion?

5 A. I would say the fact that the case in
6 Massachusetts when they had to specify in detail
7 which of the, which English common law sections have
8 been adopted here suggest that there were great many
9 that were not.

10 Q. Are there any other sources besides
11 those that you haven't mentioned?

12 A. No.

13 See, my problem is Cornell lists three
14 statutes which he claims demonstrate this theory of
15 common law, but at least one of them Massachusetts is
16 pretty clear that only some particular statutes are
17 carried over.

18 And in the case of North Carolina, he
19 cites a statute -- I'm not sure I make any reference
20 to it here, but he is over -- oh, there it is. Yes,
21 he cites a 1792 compilation of laws that was only a
22 list of laws that might be in effect. The compile of
23 that collection said these were laws that might be in
24 effect still, as long as they're not contrary to the
25 laws of North Carolina since then.

1 Q. Let me stop you there. So I'm clear,
2 are you looking at Professor Cornell's report right
3 now?

4 A. I don't have it in front of me, but I
5 can bring it up if you would like.

6 Q. No, that's all right. We may do that.
7 I just wanted to make sure, wanted to get that
8 clarified.

9 Also, something I should have asked
10 you at the beginning after the break. Did you speak
11 with Mr. Schmutter or anyone else about the substance
12 of your deposition testimony today during the break?

13 A. No. The only thing we discussed was
14 him providing me a copy of the declaration. For some
15 reason I had lost the display that had your copy.

16 Q. I appreciate that and thank you for
17 your response.

18 Are you able to pull up the exhibit on
19 Exhibit Share now, or are you referring to -- and by
20 exhibit I mean your report -- are you referring to
21 the printed-out copy?

22 A. I can display the -- I'm displaying my
23 copy of the report right now.

24 Q. Okay. So you're able to see other --
25 you're able to see exhibits on Exhibit Share right

1 now?

2 A. No, I do not see Exhibit Share for
3 some reason.

4 Q. Okay. Well, we'll get back to that if
5 we need to. But for now you're reviewing your
6 printed-out version of your report, which was marked
7 as Exhibit 1.

8 All right. So on page four of your
9 report you characterize Professor Cornell's report
10 "has attributed this carryover of English law as it
11 was in 1776 to each of the new states" based on three
12 sources. Is that correct?

13 A. Yes.

14 Q. And that's what you were just
15 referring to earlier by the three states?

16 A. Correct.

17 Q. You then state in your report that,
18 Professor Cornell "does not understand his sources."
19 Is that correct?

20 A. Yes.

21 Q. So wasn't it clear to you that
22 Professor Cornell used those three sources as
23 examples of the way that aspects of the common law
24 were absorbed by state law?

25 A. As I understand it, he was saying that

1 the common law was carried over, at least in the
2 states after the Revolution. And he had provided
3 three sources, none of which really shows the claim
4 that he makes.

5 Q. Okay. Did you review any of the
6 scholar literature that Professor Cornell has cited
7 to to provide additional evidentiary support for that
8 opinion of his?

9 A. No, I did not. The primary sources
10 were quite sufficient to demonstrate that he was
11 wrong.

12 Q. Going to page seven of your report, I
13 will direct you to the first full paragraph on that
14 page. You write, "If Cornell really believes in this
15 police power 'to promote the common good,' I look
16 forward to his stalwart defense of state laws
17 mandating racially segregated public schools and
18 public accommodations, censorship of dirty books,
19 prohibitions on sodomy one man/one women marriage
20 laws, and bans on transgender sports." Is that
21 correct?

22 A. Yes.

23 Q. Where did Professor Cornell opine on
24 any of those topics in his report?

25 A. Well, his argument is basically that

1 the -- what he said was that the laws to promote
2 public health and safety are things that would be the
3 general authority of the state. He points to
4 Pennsylvania's Supreme Court Constitution and argues
5 that it's the police power which is guaranteed by
6 that Constitution, pretty much it gives the State
7 authority to pass whatever laws it thinks that serves
8 for the purpose, for the purpose of public safety and
9 health.

10 Q. So Professor Cornell did not opine on
11 any of those topics specifically in his report. Is
12 that correct?

13 A. Correct. My point was that his
14 defense of a very broad notion of police power is
15 effectively the same argument that has been used to
16 justify these other sorts of laws that are now sort
17 of out of fashion.

18 Q. So those would be the legal
19 consequences of a Court's interpretation of that,
20 would you agree?

21 A. Those would be the results of taking,
22 of using Cornell's interpretation of the fairly
23 unlimited police powers of the State to pass whatever
24 laws they think would be justified by the public
25 health and safety.

1 Q. The legal results you mean?

2 A. Well, the opinion of the Court should
3 hold about the constitutionality of such laws.

4 Q. Is it appropriate practice for an
5 historical expert to speculate about legal
6 consequences of applying Founding era law to the
7 modern world?

8 A. Well, I mean, Cornell is basically
9 making an argument that this is the legal response to
10 this wide view of police power that yields. So, I
11 mean, he's basically making an argument about the
12 legal consequences. I mean, his whole point of his
13 declaration is he's making an argument that the legal
14 consequences of this police power allow the State
15 almost unlimited authority to regulate possession and
16 use of firearms, so he's doing it.

17 Q. I will direct you to Professor
18 Cornell's report. I will introduce that as an
19 exhibit in a moment.

20 A. I'm bringing up his report right now.
21 (Exhibit 6 is marked and introduced in
22 Exhibit Share.)

23 Q. All right. I am sharing on Exhibit
24 Share what I have marked as Exhibit 6.

25 MR. SCHMUTTER: Clayton, do you have

1 the marked exhibit that Mr. Vannella is referring to?

2 THE WITNESS: I do not. I have the
3 expert report of Saul Cornell that you have provided
4 me some months back.

5 MR. SCHMUTTER: Dan, can we help him
6 get back to the Exhibit Share so he can work from the
7 marked exhibit?

8 Q. Do you have Exhibit Share open?

9 A. No, I do not have Exhibit Share open.
10 It seems to have disappeared when I minimized the
11 Zoom window.

12 MR. VANNELLA: Okay. Can we go off
13 the record for a minute.

14 MR. SCHMUTTER: Sure.

15 (Discussion held off the record.)

16 Q. We can go back on the record.

17 Now I'm sharing with you what I'll
18 represent is Professor Cornell's affirmative expert
19 report that was submitted to plaintiffs in this
20 matter. I want to direct your attention to page 18.
21 This is Exhibit 6 marked.

22 A. Page 18. Okay.

23 Q. About halfway down the paragraph, or
24 towards the bottom of the page, Professor Cornell
25 writes, "Indeed, at the time of the Second Amendment,

1 over 90 percent of the weapons owned by Americans
2 were Long Guns, not pistols."

3 And in support of that he cites to
4 Kevin Sweeney's article, "Firearms Ownership and
5 Militias in Seventeenth and Eighteenth Century
6 England and America." And the full cite to that is
7 referred back from page 15. Let me know if you --
8 tell me if you agree that that is accurate.

9 A. Sure, that footnote on that page is
10 correct and I see that, yeah.

11 MR. SCHMUTTER: And just for
12 clarification, I'm sorry, you're asking him if you
13 accurately described the report, not if the report is
14 accurate. Right?

15 MR. VANNELLA: Yes.

16 MR. SCHMUTTER: Okay.

17 BY MR. VANNELLA:

18 Q. And going back to page 15, Footnote 41
19 includes a cite to the Sweeney articles. Is that
20 correct?

21 A. Yes.

22 Q. Did you read this work by Sweeney?

23 A. No, I did not.

24 Q. Why?

25 A. Because I consider the primary sources

1 that I have available about the presence of pistols
2 in that Colonial period to be somewhat more relevant.
3 Sweeney might have a very strong opinion, it might
4 even be a correct opinion. But so I have articles,
5 sources that show me that, in fact, pistols were
6 really quite common that, obviously, take precedence
7 over Sweeney's opinion.

8 Q. I want to refer you back now to your
9 own rebuttal report on page 13 of your report, page
10 14 on the pdf.

11 A. Okay.

12 Q. So this is subsection 2, "Magazines
13 Are Part of the Firearm;" is that correct, again on
14 this page?

15 A. Actually, I'm again on -- okay, on
16 page 13 of the declaration, okay.

17 Q. As an historical expert, what
18 qualifications are you relying on to support the
19 opinions you set forth in this section, which goes
20 from page 13 to page 15 of your report?

21 A. From the reading I've done of books
22 about the development of firearms. And, of course,
23 to some extent, there's also my own experience in the
24 actual use of some of the automatic firearms and
25 magazines.

1 Q. So not your experience as an historian
2 expert?

3 A. Yes, I would say that's a good
4 description, because I see here in the next
5 paragraph, the second paragraph on that, full
6 paragraph on that page, that I make a reference to
7 the law in question about large-capacity ammunition
8 magazine.

9 Q. Well, do you recall actually reading
10 the law as opposed to knowing the cite to a law?

11 A. I don't remember reading it, but if I
12 cited to it, I must have actually read it. I may
13 have read it in the State's brief.

14 Q. So did you -- earlier you were asked
15 if you are rebutting Dennis Baron and your answer was
16 no. Is that correct?

17 A. Yes. I know Baron has covered the
18 same claim that magazine cartridge-boxes are -- the
19 magazines are accoutrements, not arms.

20 Q. Did you read his report offered in
21 this matter?

22 A. I believe I may have -- I think I may
23 have read it. I know I've read it in other cases.

24 Q. Do you recall if you read it for this
25 case, the one that he submitted?

1 A. I do not recall.

2 Q. On page 12 of your report, Footnote
3 29, you state that, "This section applies equally to
4 the report and contentions of Dennis Baron." Is that
5 correct?

6 A. I must have read Baron's report then,
7 or I would not have made this statement.

8 Q. Okay. Do you discuss Professor
9 Baron's report other than in that Footnote at any
10 point in your rebuttal report?

11 A. No, I don't think I do. It does not
12 appear that I do.

13 Q. Did you review all of the sources that
14 were cited to in Professor Baron's report?

15 A. I have not reviewed all of them. I
16 think I reviewed some of them.

17 Q. Which ones?

18 A. You know, I couldn't tell you 'cause I
19 do not have, did not write a rebuttal of Baron's
20 report.

21 Q. Okay. Well, then why do you include
22 Footnote 29 in your report?

23 A. Because Baron made the same arguments,
24 he made the same arguments Cornell is making here.

25 Q. Baron is not -- he's not holding

1 himself out as an expert in History. Is that
2 correct?

3 A. No, Baron is holding himself out as an
4 expert in language, as I recall.

5 Q. Do you have any graduate degree
6 training or credentials in language or linguistics?

7 A. No.

8 Q. How long did you spend reviewing
9 Professor Baron's report?

10 A. Let me see if I have any notes on
11 that. No, I'm not entirely sure. I know that I read
12 through it. I read carefully after realizing Cornell
13 was making the exact same argument that magazines are
14 accoutrements, not arms.

15 Q. Well, wouldn't you agree that the
16 reasons that they're making, Professor Cornell was
17 making as you say the exact same argument are based
18 on different sources or different expertise?

19 A. They might well be, but the actual
20 claim is wrong, so it doesn't much matter what their
21 sources are. Their sources clearly led him to a
22 wrong conclusion.

23 Q. And this is based, again, as you
24 testified before, about your own experience with
25 magazines?

1 A. My own experience and also the fact
2 that if you read the history of development of
3 semiautomatic firearms, you see that magazines are a
4 fundamental part of the weapon.

5 Q. And what history are you referring to
6 specifically when you say that?

7 A. There is a recent biography of John M.
8 Browning, who was one of the major developers of
9 magazine pistols he opposed in the 20th -- 19th
10 Century. And that describes in some detail the
11 process by which magazines work as part of a
12 semiautomatic weapon.

13 Q. Is that cited in your report?

14 A. No, it is not.

15 Q. Why isn't it?

16 A. Largely because this is something
17 which is so factually known, it didn't seem to
18 require -- I mean, it didn't seem like it required
19 any sort of a Footnote. I mean, this information
20 about how magazines work is something almost anyone
21 who is even slightly familiar with firearms knows.

22 Q. Section IV of your report, which
23 begins on, let's see, page 42 of your report, this is
24 the section of your rebuttal report that pertains to
25 Professor Randolph Roth's report?

1 A. Yes.

2 Q. When did you review Professor Roth's
3 report?

4 A. Well, I know that I read through it
5 for this case, but I read through it for several
6 others, as well.

7 Q. You mean a different report in other
8 cases that Professor Roth offered?

9 A. A different report. We're talking
10 about a whole paragraph that was absolutely
11 identical. There's very or actually little
12 difference between them.

13 Q. When did you review Professor Roth's
14 report offered in this matter?

15 A. At the time that I was putting
16 together the expert declarations for this case.

17 Q. And when was that?

18 A. Let me take a look. I'll take a look
19 at the date stamps. It looks like July 17th is what
20 this seems to show here is when I put that together.

21 Q. July 17th of this year you mean?

22 A. Yes, I believe so, at least as of the
23 date stamp on the document. It's possible that I did
24 so earlier and haven't had occasion to reopen that
25 document since then, and then I altered the date

1 stamp. It was the at the same time I was reading the
2 rest of these rebuttal declarations.

3 Q. So were you working on your rebuttal
4 report Exhibit 1 in this matter before you received
5 Professor Roth's report in this matter?

6 A. I don't think I could have. If you'd
7 like, I could look back and see when I received a
8 copy of Roth's report.

9 Q. How long did you spend reviewing
10 Professor Roth's report?

11 A. Well, let's see, I see that the date I
12 received his report is July 1st and so my rebuttal
13 would have been sometime in the 16 days between the
14 date that I finished his rebuttal and the date that I
15 received it.

16 You have an amused look on your face.

17 Q. I'm sorry, I didn't think I had any
18 look on my face. I thought you were still answering
19 the question. My question was, how long did you
20 spend reviewing Professor Roth's report?

21 A. I could not tell you exactly how long,
22 but long enough to go through it, read it, and find
23 things that were either incorrect or at least
24 arguable. I found a lot of Roth's claims to be in
25 the category of arguable. They may be correct, but

1 he has not provided expressive evidence to support
2 them, other than, look at my book, I said this, it
3 must be true.

4 Q. Okay. And you cite to your own works
5 again in your own rebuttal report, do you not?

6 A. Yes, among others.

7 Q. And Professor Roth does the same with
8 his report?

9 A. Yes, he does, no question about it.

10 Q. Do you consider Professor Roth to be
11 an authority on American History?

12 MR. SCHMUTTER: Objection. No
13 foundation, ambiguous, and undefined terms.

14 A. I would say he is an expert on
15 American homicide. I do not agree with some of the
16 conclusions he reaches from his data, but he has
17 spent quite a bit of time gathering data on that
18 subject. In fact, before all this came up, Professor
19 Roth and I had several conversations about the
20 subject of mass murder because he knew I was doing
21 research on this topic.

22 Q. Did you ever speak with Professor Roth
23 concerning these lawsuits that we're here for today?

24 A. No.

25 Q. So you do consider him to be an

1 authority on murder and American History or homicide?

2 MR. SCHMUTTER: Objection.

3 Mischaracterizes the record and his testimony. Same
4 objection as before, lack of foundation, undefined
5 terms.

6 A. I would say he is an expert --

7 Q. If I could finish my question.

8 You consider him to be an expert on
9 murder or homicide and American History?

10 MR. SCHMUTTER: Same objection,
11 although you've changed the question, so...

12 MR. VANNELLA: I did not.

13 MR. SCHMUTTER: You used different
14 words. Look, the transcript will reflect what you
15 said. Let me put my objection on the record and then
16 we can continue. I'm objecting to the extent it
17 calls for a legal conclusion. I'm also objecting
18 based on lack of foundation.

19 MR. VANNELLA: New objections from the
20 question I asked before.

21 A. No, it's not the same question. You
22 used the word homicide this time. Because, in fact,
23 Roth made a point of writing a book about homicide,
24 not about murder. He included --

25 Q. What's the relevant difference to you

1 between homicide and murder?

2 A. Homicide includes lawful uses of
3 deadly force to cause somebody to die. He's very
4 clear that he includes not just murders, which are
5 criminal use of force, but also noncriminal uses.
6 And that's a fairly important difference because
7 there are typically, at least as near as I can tell,
8 at least some of homicides involving guns are, in
9 fact, lawful uses, justifiable or excusable
10 homicides.

11 Q. So in your view a homicide that's
12 justifiable is still by definition a homicide?

13 A. Yes. And that's his view, as well.

14 Q. Even though as a result the person is
15 not guilty of homicide?

16 MR. SCHMUTTER: Objection.
17 Mischaracterizes the record, incorrect legal
18 conclusion, no foundation.

19 A. Yeah, I confess I'm a little confused
20 by exactly what point you're trying to make. A
21 person who instills an act of justifiable homicide is
22 -- it's hard from a social standpoint to understand,
23 but murders and homicides are very different things.
24 Homicide is a much broader category, it includes not
25 only murders and justifiable and excusable homicide,

1 but also includes manslaughter.

2 Q. And with regard to murders or
3 homicides involving firearms, what is the relevance
4 whether one would characterize it as a murder
5 specifically or a homicide more generally?

6 A. The relevance is that if you try and
7 make any sort of comparison to the current situation,
8 if you're comparing homicides back then to murders
9 today, you're looking at two entirely different
10 things in terms of how they're measured.

11 He makes further point of the fact
12 that homicide rates and specifically unrelated
13 homicide rates of adults are fairly low in New
14 England in the Colonial period, which I do not doubt,
15 but the fact that is that murder rates, which, of
16 course, is a slightly narrower step, are not
17 dramatically higher today than they were back then
18 and yet firearms are readily available.

19 So his argument that firearms'
20 technology advancement is the reason that murder
21 rates have risen is not particularly persuasive just
22 because states like New Hampshire and my State of
23 Idaho, our murder rates are not dramatically higher.
24 That includes murders of minors and it includes
25 people that are related; whereas, his definition has

1 excluded people that are related and he excluded
2 minors from his list of homicides. So it's sort of a
3 misleading comparison of data.

4 Q. Do you agree that if a person uses a
5 firearm to commit an act of murder the person they
6 used the firearm against is dead?

7 A. Yes.

8 Q. And if a person --

9 A. Maybe for good reason.

10 Q. And if a person uses a firearm in an
11 act of homicide of any kind against a person, that
12 person is dead?

13 A. Yes.

14 And there are times that that is a
15 good and necessary thing. Unfortunately, it was
16 required. But, I mean, people that are attempting to
17 commit rape or murder, if they get killed by a
18 victim, I don't see that as a bad thing.

19 Q. So what specific explanations for
20 change in murder rates does Professor Roth miss in
21 his report in your view?

22 A. Well, one area that certainly was --
23 populations that were much lower and in general
24 murder rates are higher in America in most places
25 which have high population concentrations, and I

1 suspect that would be a fact to explain the
2 difference. Let's see. I'm trying to think. That
3 to me would be the most obvious one.

4 Q. My understanding is what you're saying
5 is population difference -- differences in population
6 account for these murder rates?

7 A. Density definitely affects murder
8 rates.

9 Q. But how is the rate of murder affected
10 by the total population of an area?

11 A. Well, as the number of people
12 increases, the opportunities for people to get into
13 arguments increase and arguments definitely are
14 certainly a factor in murder. I mean, an awful lot
15 of murders are certainly things that happen on spur
16 of the moment.

17 Q. Well, wouldn't -- isn't murder rates
18 the average number of murders per set number of
19 people, whether it's a thousand?

20 A. One hundred thousand is the typical
21 standard that is used by criminologists in measuring
22 and evaluating murder rates.

23 Q. So your view is that, even though
24 you're talking about murder rates, which is, again, a
25 set average number of murders per, say, 100,000

1 people, it's significant, what specific area you're
2 talking about and what the total population is of
3 that area?

4 A. The density of the area.

5 Q. I'm sorry?

6 A. The population density matters. For
7 example, in places where -- usually it's who people
8 live in very, very close location, very close
9 proximity, actually the murder rates are generally
10 higher.

11 Q. Are there any specific authorities
12 that you're relying on in support of this opinion?

13 A. Somewhere in here I found a data on
14 murder rates by metropolitan area from the FBI. Let
15 me see if I can find that in the report. Yes, this
16 is on page 51. "Even today, population density in
17 America is strongly correlated with murder:
18 Metropolitan Statistical Areas have 5.1 per 100,000
19 murders, compared to 4.5 for cities outside the
20 Metropolitan areas and 3.9 for non-Metropolitan
21 counties."

22 Q. So this is your citing to this FBI
23 report?

24 A. Yes.

25 Q. It's a report. Is that what you would

1 call it?

2 A. Yes, Crime in the United States 2019.

3 Q. Are you relying on any other sources
4 besides that?

5 A. No. I would assume the FBI, pretty
6 sure is a source for data, I mean at least raw data,
7 of how many murders take place, are reported in a
8 particular area and the categorization by
9 Metropolitan Statistical Area or non-Metropolitan
10 counties.

11 Q. I have a question about that, but I
12 have one more question about, or a couple more
13 questions about Professor Roth specifically, so I
14 will ask those first.

15 On page 71 of your report, you state
16 that, "A shortage of LCMs can always be solved by
17 carrying more guns." Is that correct?

18 A. Yes.

19 Q. Would you agree then that because
20 restrictions on LCMs only limit the ammunition
21 capacity of magazines, a gun owner could still carry
22 extra magazines or extra firearms if they wanted more
23 than ten rounds?

24 A. Right. I'll give you an example of an
25 incident where a mass murder was committed by someone

1 who went into a school carrying six revolvers. He
2 shot an awful lot of people. And, of course, as we
3 saw in this incident that happened in, I think it was
4 Nashville, a few months ago, the killer went in
5 holding, carrying two AR-15s.

6 Even if she had been limited to
7 ten-round magazines and not changed magazines, she
8 still could have fire 20 shots with the firearm. I
9 think carrying more ten-round magazines would
10 probably make more sense, if that's what you're
11 intent on doing. And as I think also in the Parkland
12 shooting was done by someone using ten-round
13 magazines.

14 Q. I wanted to ask you about that. Since
15 you brought it up, I'll do so now. By the way, even
16 if -- before I do, from what you just said, even if
17 someone could just always carry more magazines, they
18 would have to carry more magazines and not fewer that
19 hold more bullets. Correct?

20 A. Yes. Most of the weight of the
21 magazine is the bullets, it's not the magazine
22 itself. Magazines are actually pretty light.

23 Q. And they would have to replace the
24 magazines more often if each magazine holds fewer
25 bullets?

1 A. Yes. However, magazine swapping is
2 really quite quick.

3 Q. I want to direct you to page 14 of
4 your report.

5 A. Yes, I'm on it.

6 Q. And on this page you refer to the
7 Parkland shooting from 2018?

8 A. Yes.

9 Q. You do so later in your report as
10 well, I believe. Is that correct?

11 A. Probably.

12 Q. Are you making the same point
13 regarding the Parkland shooting in both points in
14 your report?

15 A. I don't know. Let me take a look and
16 see.

17 Q. Well, yeah, so go to page --

18 A. I am making the same point that
19 because both reports had made a point of the claim
20 about high-capacity LCMs being a hazard.

21 Q. Right. And as you said before, what
22 you quote in this report, in your report indicates
23 that only ten-round magazines were found. Is that
24 correct?

25 A. Right.

1 Q. And this is based on a news report of
2 a press statement that was made that day by, on the
3 day of the shooting by a State Senator Lauren Book?

4 A. Correct.

5 Q. She was a Florida State Legislator at
6 the time?

7 A. Yes.

8 Q. Have you researched whether or not
9 this Legislator still stands by that statement?

10 A. I have not. I've seen -- I've not
11 looked for any other references to it, but she's
12 since backed down from that statement.

13 Q. Did you review any police or other
14 records that discuss the capacity of the magazines
15 that the Parkland shooter used?

16 A. I was not able to find any in my
17 search. They might not actually be out there
18 somewhere, but, you know, you're limited to what you
19 can actually find sometimes.

20 Q. Are you aware that according to
21 Florida Law Enforcement Authorities that eight, 30,
22 and 40-round magazines were recovered at the Stoneman
23 Douglas High School?

24 MR. SCHMUTTER: Objection. No
25 foundation.

1 MR. VANNELLA: I'm asking if he's
2 aware.

3 A. I was not aware.

4 MR. SCHMUTTER: The question suggests
5 facts that are not in the record. There's no
6 foundation for the question.

7 BY MR. VANNELLA:

8 Q. Are you aware of any information that
9 would -- that is not accurate, Mr. Cramer, other than
10 this statement that you quote in your report?

11 A. That is the only information of which
12 I'm aware of it being inaccurate and only because you
13 told me. I mean, if I had been aware of that, I
14 would, obviously, not have used it.

15 MR. VANNELLA: Any need for a break
16 for anyone, like a short break? If not, we can keep
17 going.

18 MR. SCHMUTTER: Might just need a
19 couple minutes.

20 MR. VANNELLA: Like ten after.

21 MR. SCHMUTTER: Okay. Yeah, that's
22 good. Thank you.

23 MR. VANNELLA: We'll go off the
24 record.

25 (A recess is taken at 2:02 p.m.;

1 resuming at 2:21 p.m.)

2 BY MR. VANNELLA:

3 Q. Back on the record.

4 Again, Mr. Cramer, did you speak with
5 Mr. Schmutter or anyone else during our break
6 concerning the substance of your deposition
7 testimony?

8 A. No.

9 Q. I want to now turn to Section III of
10 your rebuttal report, which, again, is Exhibit 1,
11 which begins on page 27 of your report.

12 A. Page 27, okay.

13 Q. Second III is titled, "Louis
14 Klarevas." Is Section III of your rebuttal report
15 the section that pertains to your rebuttal of Louis
16 Klarevas' report?

17 A. Yes.

18 Q. Now, Mr. Klarevas is offering opinions
19 as, in the field of statistics and data analysis. Do
20 you agree?

21 A. So I understand.

22 Q. Do you hold yourself out as an expert
23 on statistics or data analysis?

24 A. No.

25 Q. So what qualifications are you relying

1 on to critique Professor Klarevas' report?

2 A. The fact that he cherry-picks his
3 data. He picks the ranges of years that appear to me
4 to be designed to satisfy the results he wants to
5 find.

6 Q. And do you have any graduate degree,
7 training, or credentials in statistics?

8 A. No.

9 Q. Do you have any graduate degree,
10 training, or credentials in data analysis?

11 A. No.

12 Q. Did you review Professor Klarevas'
13 report?

14 A. Yes, I did.

15 Q. When did you review his report?

16 A. Well, hang on a second, I'll give it
17 to you. You know, I cannot exactly tell you the
18 answer on that. I know it was about the same -- oh,
19 here it is. I finished on July 15th.

20 Q. Of this year?

21 A. Yes.

22 Q. How long did you spend reviewing
23 Professor Klarevas' report?

24 A. Looks like five hours. I would not
25 say that it was a credibly detailed valuation. I

1 found enough serious problems with it that I thought,
2 well, that's enough to demonstrate the invalidity of
3 his claims.

4 Q. But what in your background qualifies
5 you to identify what you believe are mistakes or
6 errors in his report?

7 A. Well, the fact that he excludes an
8 awful lot of mass murders that might have changed the
9 results of that graph that he has.

10 For example, he picks -- I forget
11 after what graphs he picks different ranges of dates.
12 I'll give you an example.

13 Q. Well, let me stop you there. My
14 question was not what errors do you find in his
15 report. My question was, what qualifies you to
16 identify anything that would be erroneous in your
17 view?

18 A. The fact that I -- that I know enough
19 about math to know that, you know, that when you
20 exclude data, something you learn in basic science
21 class, if you cherry-pick your data, you get pretty
22 much any results you want. Something they taught us
23 in Biology when I was in high school is you got to be
24 careful you don't cherry-pick your data. You have to
25 be sure you are using full-range range data as well

1 into the questions in the experiments being
2 conducted.

3 Q. Do you include data of your own in
4 your rebuttal report?

5 A. Well, I did not include a large
6 collection of data in Professor Klarevas. I do
7 include a fair amount of data about mass murder later
8 on.

9 Q. But that's in regards to your rebuttal
10 of Professor Klarevas. Correct?

11 A. No, I think it was also in response to
12 Roth's claims about mass murder. I'll pull it up
13 here.

14 Q. When you discuss mass murder in your
15 report, you're not directing that at all towards
16 Professor Klarevas, it's only to Professor Roth?

17 A. Yes. So, I mean, I do have some
18 examples, but they're anecdotes, they're not
19 collections of data in response to Klarevas.

20 Q. Well, your section on Professor
21 Klarevas goes from, again, from page 27 to page 36.
22 Correct?

23 A. Yes.

24 Q. And on page 32 in the middle of the
25 section you include a subsection 2, that's titled,

1 "Cherry Picking Data." Correct?

2 A. Uh-huh.

3 Q. You're referring to Professor Klarevas
4 cherry-picking data in his report?

5 A. Yes.

6 Q. You had testified earlier in this
7 deposition that you had to submit a corrected
8 declaration in one of the prior matters that you had
9 submitted a declaration in. Is that correct?

10 A. Yes.

11 Q. What matter was that?

12 A. That was the Oregon Firearms
13 Federation vs. Smith.

14 Q. And you testified earlier that you
15 used the aide or the assistance of a data analyst in
16 preparing that amended report?

17 A. Yes, someone who's fairly familiar
18 with the database, the type of database I was using,
19 assisted me in writing some more detailed analyses of
20 data. In particular, the State of Oregon asked for
21 me to examine how many mass murders are committed by
22 individuals as opposed to being committed by groups
23 and that was one of the results that I was able to
24 provide. The report was this break down showing how
25 many incidents were committed by individuals as

1 opposed to groups.

2 Q. You also testified earlier that for
3 this rebuttal report you relied on the assistance of
4 a gentleman who helped check citations?

5 A. Yes.

6 Q. And like non-substantive edits. Is
7 that correct?

8 A. Yes.

9 Q. You did not rely on any data analysts
10 or statistician in preparing this report?

11 A. No.

12 Q. So you used the term mass murder in
13 Section II of your report. Correct?

14 A. Yes, I believe so.

15 Q. How do you define mass murder in this
16 report?

17 A. Mass murders are those in which four
18 or more people are killed in a 24-hour period or
19 less.

20 Q. And can you point to any scholarly
21 authorities that supports that particular definition
22 of mass murder?

23 A. That's the definition used by
24 Professor Fox at Northeastern University. And the
25 first question in the first deposition in the Oregon

1 case, the attorneys for their side made a rather
2 strong point of saying that only four more murders at
3 once shall be qualified as mass murder. There's
4 never been --

5 Q. We're not sure here for the Oregon
6 case, sir. You understand that?

7 A. I understand.

8 Q. Okay. And are you saying you're
9 relying on arguments by attorneys in another case as
10 scholarly evidence?

11 A. No, they caused me to go look at the
12 different opinions and it turns out there has never
13 been a particularly standard opinion as to what
14 constitutes the count for mass murder. One that has
15 been used by pretty consistently by a lot of
16 different scholars is four or more dead, not
17 including the killer.

18 Q. Well, you mentioned Professor Fox of
19 Northeastern University?

20 A. Right.

21 Q. What's his first name?

22 A. James Fox.

23 Q. And are there any particular
24 publications by Professor Fox that you're relying on
25 when you say that he uses that definition?

1 A. Yes, he manages a database, which is
2 maintained by Northeastern University, which was
3 originally maintained by USA Today, that keeps track
4 of every mass murder that takes place in the United
5 States from 2006 forward.

6 Q. Now, in your report you refer to a USA
7 Today study. Is that the same study that you're
8 talking about right now?

9 A. Yes.

10 Q. All right. You mentioned Professor
11 Fox. What other authorities in this field besides
12 Professor Fox use that definition, to your knowledge?

13 A. I could go and find them, but I said
14 this is what I found is I found a lot of different
15 criminologists uses the four or more number.

16 Q. Are those individuals referenced in
17 your rebuttal report?

18 A. I do not believe so.

19 Q. Did you ever do any research into
20 whether the concept of mass murder might have been
21 called something else than a mass murder
22 historically?

23 A. I can tell you that there was a
24 January -- there's a 2000 New York Times article that
25 uses the phrase rampage killer.

1 Q. What year was that?

2 A. 2000.

3 Q. Any source prior to 2000?

4 A. Not that -- I did not really look for
5 that in recent periods. I could tell you the phrase
6 mass murder does not appear until fairly 'til the
7 '50s, not because there were no mass murders, because
8 someone had not put together the idea of a crime that
9 involved murdering a lot of people at once.

10 Q. Well, when you say you did not see
11 that term used prior to the 1950's. Correct?
12 What -- why do you make -- why do you believe that
13 that is accurate?

14 A. Because I used the algorithm tool in
15 Books.Google.com to search for all references of the
16 phrase mass murder and what I found was that the
17 phrase referring to mass murder was not used before
18 then. The phrase comes up a lot, but it's usually an
19 abbreviation M-a-s-s, period, or some other thing
20 which is an abbreviation of Massachusetts.

21 Q. So what you do to research whether
22 what you define as mass murder made might have had a
23 different term attached to it prior to 1950?

24 A. I did not look for a different term.
25 I merely -- mass murder was the phrase I was

1 originally using to find such incidents in the
2 newspaper. And since I did not find that phrase, I
3 just said, okay, I'll just search for all instances
4 where more than four people were killed.

5 Q. So we agree that what you defined as
6 mass murder has occurred in the United States prior
7 to the 1950s, even if it --

8 A. Oh, yes.

9 Q. -- if murder wasn't the term used to
10 describe it?

11 A. Yes, thousands of incidents.

12 Q. How do you know there were thousands
13 of incidents?

14 A. Because I've been reading newspapers
15 throughout this period. I'm keeping track of
16 reporting each incident that happens and so I have
17 some idea of how many there are. Basically, what I
18 was searching for is I would search for phrases or
19 form -- murders and murder and that number and/or
20 somebody killed, somebody slaughtered, and then I
21 would have to go through the articles and see is this
22 actually a mass murder, or is this some other phrase
23 that got -- some other reason that someone has used
24 the word murder together.

25 Q. Well, which newspapers historically

1 have you reviewed to search for those words?

2 MR. SCHMUTTER: Objection to form.

3 Objection, ambiguous, undefined.

4 A. I used -- well, I know Congress
5 contains a collection called Chronicling America,
6 which has about ten million pages of newspapers from
7 the 1790s forward.

8 There's also another database called
9 Newspapers.com, which is a commercial database that
10 contains vast numbers of newspapers from the more
11 modern periods and I've been using those to try to
12 find the incidents.

13 Q. Did you review all of the sources that
14 are available on both of those databases?

15 A. I reviewed all of the newspaper
16 articles that came up on it in the searches for
17 murders and then a number or slaughter and then a
18 number or slaughter, then a number. And some days I
19 started from existing secondary sources and then went
20 back to their primary sources to define the incidents
21 in more detail.

22 Q. Did you use the terms murder and
23 slaughter, did you use any other terms in your
24 searches?

25 A. Killed. It's possible I missed a few.

1 I would not be --

2 Q. But killed could be homicide, it's not
3 murder. Correct?

4 A. It could be. That's why I have to
5 read every article and make sure that the article is
6 actually describing a murder.

7 Q. Well, if it doesn't use the term
8 murder, what do you take out an article to that would
9 lead you to conclude whether it's talking about a
10 murder or not?

11 A. The description of the fact that often
12 the word murder is actually used by police to
13 describe what happened or the description is of a
14 crime or the person who was murdered, obviously,
15 could not possibly be a hazard to the person who did
16 the murder.

17 For example, an incident where they're
18 all children under ten, I think we can say with some
19 certainty that when the father slaughters them all
20 with a hammer that this was not self-defense.

21 Q. Is it fair to say that with regard to
22 these articles you're making a conclusion as to
23 whether you would put that as murder or not based on
24 facts that you read in the article?

25 A. Absolutely. There's always a

1 possibility that --

2 Q. And as you talked about before, murder
3 -- the difference between murder and homicide comes
4 down to, among other things, the mental state and
5 whether it's justified or not and factors like that.
6 Correct.

7 A. Whether it's justified or not. Mental
8 state is not necessarily an issue. If a person is
9 mentally ill, it can still be a murder, you just may
10 not be criminally responsible for it.

11 Q. Are you familiar with the term
12 manslaughter?

13 A. Yes, I am.

14 Q. Do you understand the difference
15 between manslaughter and murder?

16 MR. SCHMUTTER: Objection to the
17 extent it calls for a legal conclusion.

18 Q. Do you think there's a difference
19 between manslaughter and murder, to your
20 understanding?

21 A. Yes, there is a difference.

22 Q. What's your understanding of that
23 difference?

24 MR. SCHMUTTER: Objection to the
25 extent it calls for a legal conclusion.

1 A. What I've generally done is those
2 instances where the crime was clearly intentional,
3 not in any way considered justifiable or excusable,
4 then I'd run it through those murders. Ones where a
5 number of people died as a result of someone being
6 negligent or failing to be careful in some way, those
7 would not be classified as murders.

8 Also crimes committed -- death caused
9 by police officers or other official entities that
10 did not result in some sort of criminal charges
11 against them, I have excluded those as murders
12 because those are legal events, legal killings.

13 Q. Is it your understanding --

14 A. Go ahead.

15 Q. Is it your understanding that any
16 killing that is not -- that is intentional and is not
17 justified, it's a murder? Is that how you define
18 murder?

19 MR. SCHMUTTER: Same objection.

20 A. There are certain cases which qualify
21 as manslaughter, but, and not murder, but -- and
22 those are homicides, but as I said, I've done my best
23 to differentiate between the ones where there's a
24 clear intention, malice and forethought and
25 intentional killing, from the instances where someone

1 does something stupid and causes a death perhaps
2 negligently.

3 Q. Your understanding is that -- it's
4 your understanding a manslaughter, that is also an
5 intentional killing?

6 MR. SCHMUTTER: Objection to the
7 extent it calls for a legal conclusion.

8 A. Manslaughter can also be intentional.

9 Q. But not -- but it wouldn't be murder?

10 MR. SCHMUTTER: Same objection.

11 A. If you get into a bar fight with
12 someone and punch them in the head and they fall over
13 and bang their head on a chair and die, my
14 understanding is that qualifies as manslaughter, not
15 murder.

16 If you go into the bar angered this
17 guy has pushed you around and you come back to the
18 bar a little bit later and intentionally grab him and
19 throw him down and smash his head into a wall and he
20 dies, that would qualify as, I believe, second degree
21 murder. Right?

22 Q. I want to turn to page 27 of your
23 report, which is, again, the beginning of Section
24 III. Right after the heading Section III you write,
25 "This rebuttal to Louis Klarevas demonstrates that

1 his claims about mass murder rate change are very
2 questionable." Is that correct?

3 A. On page 27?

4 Q. Yeah.

5 A. What is the phrase you said I used?

6 Oh, okay.

7 Q. I'll repeat my question.

8 A. Okay.

9 Q. "This rebuttal to Louis Klarevas
10 demonstrates that his claims about mass murder rate
11 change are very questionable." Is that correct?

12 A. Yes.

13 Q. Do you recall if Louis Klarevas ever
14 used the term mass murder rate in his report?

15 A. Well, it's pretty clear that he was
16 referring to mass murders when he's discussing a mass
17 fatality in a sense.

18 (Exhibit 7 is marked and introduced in
19 Exhibit Share.)

20 Q. Okay. I want to direct your attention
21 to what I've marked and introduced as Exhibit 7,
22 which is Professor Klarevas' report in this matter
23 and let me know when you're able to pull it up on
24 Exhibit Share.

25 A. Okay.

1 Q. Searching through that report, and
2 whether you want to review it page by page or word
3 search or whatever, I'll leave it up to you, can you
4 point out the specific "mass murder rate" in
5 Professor Klarevas' report that you were referencing
6 in your rebuttal report on page 27?

7 A. Yes, page 30. "Identify shootings
8 resulting in mass murder" --

9 Q. Hold on. Hold on. I'm not there yet.
10 You said page 30?

11 A. Yes.

12 Q. Where on page 30 specifically?

13 A. Near the bottom of that opening
14 paragraph.

15 Q. Okay.

16 A. And I also see 11 other, a total of 11
17 places where he used the phrase mass murder in that
18 document.

19 Q. You're looking at Professor -- you're
20 looking at Exhibit 7?

21 A. Yes.

22 Q. I'm sorry. And where are you
23 specifically pointing to?

24 A. Page 30.

25 Q. Yes.

1 A. "Stated differently, if you examine
2 data sets that identify shootings resulting in mass
3 murder, you will not find the Poway synagogue attack
4 on their lists."

5 And he also has a number of other
6 places where he is referencing mass murders in this
7 document.

8 Q. Well, let's start with this one.

9 So, again, he writes, "Stated
10 differently, if you examine data sets that identify
11 shootings resulting in mass murder, you will not find
12 the Poway synagogue attack on your list."

13 So he's saying specifically shootings
14 resulting in mass murder. Correct?

15 A. Yes.

16 Q. He's talking about mass shootings that
17 also result in murder or mass murder?

18 A. Right.

19 MR. SCHMUTTER: Objection. The report
20 speaks for itself.

21 Q. Is that what he writes?

22 MR. SCHMUTTER: Same objection.

23 A. He's making a distinction between mass
24 shooters and mass murders because there's a fair
25 amount of mass shooting that happen every year that

1 not enough people are killed for it to be a mass
2 murder.

3 Q. He does include tables and other data
4 about mass shootings. Correct?

5 A. You know, I'm not sure. I was focused
6 on his discussion of -- I see here that on page 30 he
7 talks about, "The Operative Mechanism of LCM Bans:
8 Forcing Pauses in Active Shootings."

9 So he does, obviously, acknowledge
10 that there are mass shootings, but much of his work
11 that he was associated with discussion of mass
12 murders.

13 Q. Well, mass murders, you would agree,
14 are distinct from mass shootings. Correct?

15 A. Yes, there a smaller -- they're a
16 subset.

17 Q. Can you have a mass shooting in which
18 no shooting victims die as a result?

19 A. Yes, you can.

20 Q. Can you have a mass murder in which no
21 murder victims are shot?

22 A. Yes, you can certainly have mass
23 murders in which no victims are shot. I noticed in a
24 number of his figures here refer to "High-Fatality
25 Mass Shooting incidents."

1 So by that he clearly means mass
2 murders. Pages nine and ten, for example. In fact,
3 he used the phrase "High-Fatality Mass Shooting
4 Incidents," he defined the graphs somewhere earlier
5 in this document as I think it's 11 or more dead.

6 Q. Right, that is how he defines
7 double-digit fatality mass shootings in his report.
8 Correct?

9 A. Right. So when he talks about,
10 "High-Fatality Mass Shooting Incidents," he's
11 clearing talking about mass murders involving death.

12 Q. Right. So to the extent he's talking
13 about double-digit fatality mass shootings, that's
14 what you mean when you say he uses mass murder rates
15 in his report?

16 A. Yeah.

17 Q. And when you say "his claims about
18 mass murder rate change are very questionable, you're
19 referring to that?

20 A. Yes, I'm referring to his selection of
21 dates that enable him to exclude a lot of earlier
22 mass murders that would lead to high-fatality death
23 rate category.

24 Q. You're here today as a rebuttal expert
25 to Mr. Klarevas, not an affirmative expert. Correct?

1 A. Correct.

2 Q. So why when he used this data rate
3 that refer to mass shootings do you respond with
4 rates that deal with mass murders, which as you
5 already said are two different things?

6 A. Because he's using the phrase
7 high-fatality mass shootings, and he's defined
8 high-fatality as double-digit deaths, so he's clearly
9 referring to mass shootings that resulted in a
10 double-digit number of deaths. Those are mass
11 murders.

12 Q. Do you question the voracity of his
13 data that he's using when he is referring to
14 double-digit mass fatalities? Do you dispute the
15 accuracy of that data in his report?

16 A. I dispute the date ranges that he's
17 using as being, as I said, cherry-picker. They are
18 picked I think rather intentionally to exclude
19 earlier high-fatality mass shootings so he can create
20 exactly the graph he wants.

21 Q. So you have no reason to think that
22 any of the data in his report is inaccurate in any
23 way, just that you don't like the way it's presented?

24 A. I do not like the fact that he's
25 excluding data that would tend to injure his claim.

1 Q. What do you mean when you say injure
2 his claim?

3 A. These -- these -- let me see what the
4 exact phrase he uses to describe these. He uses
5 linear -- he basically uses linear graphs to show --
6 let me give you an example here.

7 Q. I'm sorry. What page are you on?

8 A. I'm still hunting for it.

9 Q. I'm sorry. What was that?

10 A. I'm still hunting for the phrase.

11 Q. What page is that again?

12 A. I'm still looking for the page.

13 Q. Okay. Are you referring to page
14 seven, Figure 1 and 2?

15 A. I haven't gotten there yet.

16 I'm looking at Figure 2 on page seven,
17 linear trendline, which he's using to show this
18 increase this high-fatality mass shooting fatalities.

19 Q. Are you familiar with linear
20 trendlines?

21 A. Yes, I am.

22 Q. So looking at Figure 2 on page seven,
23 would you agree that this is the barchart that graphs
24 the annual occurrence of high-fatality mass shooting
25 deaths that have occurred in the United States

1 between 1991 and 2022?

2 A. Yes.

3 Q. And based on this trendline that
4 covers the last 32 years, the occurrence of
5 high-fatality mass shooting death is on the rise.
6 Correct?

7 A. For that limited period of time, yes.
8 And the argument he's trying to make
9 is there has been an increase in these sort of
10 incidents over that period of time. And certainly
11 while true, it's sort of misleading in that it leaves
12 out, in fact, quite a number of these incidents
13 happened before 1991 and that linear trendline would
14 probably be a different shape, a different slope if
15 you included the pre-1991 high-fatality mass
16 shootings.

17 Q. It probably would based on what?

18 A. Based on the fact that there are a
19 number of high-fatality mass shooting events that
20 take place before 1991. Texas Tower 1966, the Navy
21 Yard murder, which was in -- no, not Navy Yard -- I
22 would say that the trendline would be perhaps the
23 slope would change by adding in the previous
24 high-fatality mass shootings, it's at least a likely
25 possibility. But leaving that out is sort of an, I

1 think sort of a deceptive practice.

2 Q. It's deceptive because it only goes
3 back 32 years and not longer?

4 A. And not back into the '60s when these
5 incidents were also happening.

6 And I also have another objection that
7 is --

8 Q. Do you know why Professor Klarevas
9 used the date range starting in 1991?

10 A. I would guess it's because this is the
11 source of data that he had available to him. I
12 believe he mentioned that he used the Gun Violence
13 Archive.

14 Q. So he would not have the data that
15 you're referring to then?

16 A. He might not.

17 Q. Okay. And are you saying that if mass
18 double-digit -- or, I'm sorry, high-fatality mass
19 shooting fatalities, this chart went back to the
20 1960s, that the trendline wouldn't be going up from
21 the '60s to the present?

22 A. It would not. The slope might well be
23 different. The only question is how higher they
24 might be.

25 My other objection is that by focusing

1 on mass shootings, he's ignoring the other methods of
2 mass murder that take place. There's an awful lot of
3 other mass murders that have taken place.

4 Another example of his cherry-picking
5 is on page six where he says, "Intentional Criminal
6 Violence in the U.S. since 9/11." And the problem I
7 have with that is there are an awful lot of -- awful
8 lot of non-firearms mass murders that have taken
9 place in the period since 9/11. Of course, 9/11 is
10 the largest single set of mass murders in US history
11 and do not involve firearms at all.

12 I mean, this focus on mass murder --

13 Q. Is there anything specific you're
14 relying on when you say he's incorrect in that
15 statement?

16 A. Not so much incorrect. It's a little
17 misleading if all you're focusing on is firearms mass
18 murder and are ignoring other types of mass murders.

19 Q. I want to direct your attention to
20 Table 1 of Professor Klarevas' report, which is on
21 page six of his report. And it's titled, "The
22 Deadliest Acts of Intentional Criminal Violence in
23 the U.S. since 9/11."

24 You understand 9/11 to refer to
25 September 11, 2001. Right?

1 A. Yes.

2 Q. Would you agree on this chart all
3 seven incidents that are listed are mass shootings?

4 A. Yes. But, again, by picking that data
5 he's left out a lot of other acts of intentional
6 criminal violence that caused very high death rates.

7 Q. Do you have reason to believe that
8 these are not the seven deadliest individual acts and
9 intentional criminal violence that have occurred in
10 the United States since September 11th, 2001?

11 A. No. My objection is the fact that
12 he's picking his date range in a way that is designed
13 to create the sort of graph he wants showing this
14 steady increase in high-fatality mass shootings.
15 But, again, he's focusing on mass shootings and
16 ignoring all the other ways in which mass murders
17 take place.

18 I suppose if the other mass murder
19 types don't matter, well, then I guess you could just
20 ignore it, but -- although I would say Figure 1 and
21 Figure 2, since they're, again, they're referring
22 just to mass shootings. They're ignoring all the
23 other mass murders that take place during that
24 period.

25 Q. But those are referring to the

1 trendlines of double-digit fatality shootings.

2 Correct?

3 A. Right. And they are ignoring mass
4 murders that involve thousands.

5 Q. Right. But it wouldn't change.
6 Again, these are just trendlines for that particular
7 type of event. Right?

8 A. I can guarantee you, if you included
9 the 9/11 mass murders in this chart, that trendline
10 would look utterly different.

11 Q. Well, it wouldn't because it's talking
12 about shootings. Correct?

13 A. Yeah. But the point I'm trying to
14 make is, he's focused on firearms mass murders and
15 ignoring a lot of other mass murders that take place
16 in this country and that are often higher death
17 rates. I mean, if your objective is to make an
18 argument relating to firearms only and you really
19 don't care about mass murders of other types, then I
20 guess it sort of makes sense.

21 Q. Well, we are here, after all, in
22 lawsuits that are challenging laws on firearms and
23 LCMS, are we not?

24 A. Yes. If the objective, however, is to
25 reduce mass murder, then, obviously, you might have

1 to look at other possibilities.

2 Q. I want to direct your attention to
3 Table 6 of Professor Klarevas' report, which is on
4 page 18. And this is titled, "Mass Shootings
5 Resulting in Double-Digit Fatalities in U.S. History,
6 from 1776 to 2022." Is that accurate?

7 A. Yes.

8 Q. According to this table, the first
9 mass shooting resulting in double-digit fatalities
10 occurred in the United States in 1949. Correct?

11 A. That's what his claim is.

12 Q. And according to the table, this 1949
13 mass shooting occurred in Camden, New Jersey?

14 A. Yes, it's in my database.

15 Q. You identify a double-digit fatality
16 mass shooting as defined by Professor Klarevas that
17 resulted in the United States prior to 1949?

18 A. I have not looked specifically for
19 that.

20 Q. In your report, you discuss Table 6
21 and you question Professor Klarevas' opinion that the
22 30 double-digit fatalities in mass shootings in Table
23 6 are largely related to the use of assault weapons
24 and LCMs. Is that correct?

25 A. Yes.

1 Q. Would you agree that 23 of the 30
2 incidents identified in Table 6 involved either
3 assault weapons or LCMs or both?

4 A. Let me take a look here. Actually,
5 the one -- okay, hold on, let me see. Yeah, some of
6 these I'm not familiar with. Some of them I have to
7 go look them up.

8 Q. Do you have any reason to doubt the
9 accuracy of the information in Table 6?

10 A. None that I can immediately point to.

11 Q. So understanding you may not be
12 personally familiar with each of the events, just
13 looking at Table 6, do you agree that 23 of the 30
14 incidents involved either the use of assault weapons
15 or LCMs or both; and, therefore, seven of the 30 did
16 not involve either of those?

17 MR. SCHMUTTER: Objection. Lack of
18 foundation, mischaracterizes the record.

19 A. My response would be that I have no
20 idea. I suspect that this table maybe is at least
21 fairly close 'cause I recognize quite a number of
22 these involved assault weapons and LCMs. I have not
23 had a chance to review all of these.

24 Q. And 20 out of 30 is about 77 percent.
25 Does that sound right?

1 A. Twenty out of 30 would be -- yeah,
2 that would be -- that would be about right.

3 MR. SCHMUTTER: Objection. Objection
4 to the math.

5 Q. In your report, do you note that there
6 had been double-digit fatality mass shootings that
7 involved neither assault weapons or LCMS. Is that
8 correct?

9 A. Yes.

10 Q. Professor Klarevas notes the same
11 thing in Table 6, doesn't he?

12 A. Yes.

13 Q. That's again, according to Table 6,
14 seven of the 30 incidents did not involve either
15 assault weapons or LCMS. Correct?

16 A. Take another look at his, his
17 collection here. Let me see if he includes one in
18 1990.

19 Q. Well, my question was just, is it
20 correct that in this chart he notes that there had
21 been double-digit -- mass shootings resulting in
22 double-digit fatalities that did not involve either
23 assault weapons or LCMS?

24 A. I would say that I could not see
25 anything that clearly demonstrates that he's wrong on

1 this particular claim.

2 Q. So he agrees with you that there have
3 been some such incidents that did not involve assault
4 weapons or LCMs?

5 A. Yes.

6 Q. Yes, okay.

7 Now, in your report, Exhibit 1, on
8 page 28 --

9 A. I'm getting up to page 28. Yes.

10 Q. You provide two examples of mass
11 shootings in the second paragraph. You mention the
12 1966 University of Texas sniper attack and the Navy
13 Yard mass murder. Correct?

14 A. Right.

15 Q. Is this the Navy Yard incident
16 referring to the incident in Washington, D.C. in
17 2013?

18 A. Yes.

19 Q. And you believe these to be examples
20 of double-digit fatality mass shootings that involve
21 either assault weapons or LCMs. Is that correct?

22 A. Right, 14 people in Texas and 12 in
23 that Navy Yard.

24 Q. Okay. Did you review the police crime
25 scene reports regarding University of Texas matter?

1 A. No. What I did find was reports on
2 the rifle that he used and Remington 700, not being
3 able to see any listed, a high-capacity magazine
4 would be used on that.

5 Q. And what weapon was your understanding
6 that was used from those reports?

7 A. A Remington 700, which is a
8 traditional pump-action rifle.

9 Q. Were you aware of any police reports
10 that noted that the sniper in the University of Texas
11 incident was armed with an M1 carbine?

12 A. I've seen no mentions of the M1
13 carbine. My understanding was he only had used it
14 when sometimes would lead to murders.

15 Q. Would an M1 carbine be considered an
16 assault weapon?

17 MR. SCHMUTTER: Objection to form,
18 ambiguous.

19 A. Well, it depends how it's defined in
20 the law. I mean, I suspect that in many states it
21 would, it would conform to their requirement, yes.

22 Q. And were you aware of any police crime
23 scene reports that noted the sniper used magazines,
24 some of which had a capacity of 30 rounds?

25 A. No, I'm not, I'm not seeing a mention

1 of that. If you could by any chance send me a link
2 to the articles about that, I would be very
3 appreciative.

4 Q. I want to turn now to Table 3 of
5 Professor Klarevas' report, which is on page 15.

6 A. Page 15, okay.

7 Q. Do you have any evidence that refutes
8 the data points and calculations that appear in Table
9 13 (sic) of his report?

10 A. I have no evidence to refute it.

11 Q. You do not?

12 MR. SCHMUTTER: I'm sorry, Table 13?
13 What page are we on.

14 MR. VANNELLA: Table 3 on page 15.

15 MR. SCHMUTTER: Oh.

16 A. "The calculations in Table 3 exclude
17 incidents in which the firearms used are unknown."
18 I'd be curious to know how many instances there are
19 in which the firearms used are unknown.

20 Q. So, again, my question was, do you
21 have any evidence that refutes the data points that
22 appear in Table 3 of his report?

23 A. No, I do not.

24 Q. Turning to the next page, page 16,
25 Table 4. Same question, do you have any evidence

1 that refutes the data points and calculations that
2 appear in Table 4 of his report?

3 A. No.

4 Q. And, finally, Table 5, also on page 16
5 of his report, do you have any evidence that refutes
6 the data points and calculations that appear in Table
7 5?

8 A. No. Although I would point out that
9 to some extent a person who attempts mass murder is
10 probably more likely to look for a weapon, an assault
11 weapon, and if they do not manage to get ahold of
12 one, they might go ahead and switch to another one.

13 However, substitution is almost always
14 an issue in almost any sort of violent crime. And,
15 again, he basically says he excludes incidents in
16 which it is unknown if assault weapons and/or LCMs
17 were used. So this could be accurate, or it might
18 be, but by leaving that information might change
19 things.

20 Q. If anything, then it underreports the
21 incidents in which LCMs or assault weapons were used.
22 Correct?

23 A. That's true, that would be the case.

24 Q. I want to turn to page 30 now of your
25 report, Exhibit 1.

1 A. Yes.

2 Q. You write right after the subsection
3 1. "Effectiveness of Assault Weapons Bans," you take
4 issue with the following opinion that's offered by
5 Professor Klarevas in his report: "States that
6 restrict both assault weapons and LCMs experience
7 fewer high-fatality mass shootings incidents and
8 fatalities, per capita, than states that do not
9 restrict assault weapons and LCMs." Is that
10 accurate?

11 A. Yes.

12 Q. As about per capita, do you understand
13 when Professor Klarevas stated that he analyzed
14 incidents and fatalities per capita that he accounted
15 for population?

16 A. I can accept that, although some of
17 his graphs do only show -- they do not show per
18 capitas.

19 Q. But this particular statement that you
20 are quoting in your report, he's talking about per
21 capita. Correct?

22 A. I understand, yes.

23 Q. You then go on to state that Professor
24 Klarevas "points to his own work for this claim." Is
25 that correct?

1 A. Yes.

2 Q. Did he not also cite to other studies
3 other than his own that found that the Federal
4 Assault Weapons Ban had an effect on mass shooting
5 violence?

6 A. Yes. He also demonstrated that there
7 are other experts who have come to different
8 conclusions about this.

9 Q. But he cited to experts other than
10 himself that agree with his conclusion, did he not?

11 A. Yeah, but I'm citing to experts who do
12 not agree with his conclusion.

13 Q. Right. But your statement is, "He
14 cites to his own work for this claim." Correct?

15 A. Yep.

16 Q. Did you read and review the other
17 sources that he was relying on in making that
18 statement other than his own publications?

19 A. I do not remember.

20 Q. Why didn't you cite and discuss those
21 articles in your report?

22 A. Mostly because this is a rebuttal and
23 rebuttal involves demonstrating what I perceive to be
24 errors or inadequacies in the report that I'm
25 examining. If I were writing an affirmative report

1 stating my opinion, it might be a hole in the ground,
2 but I would be examining in detail all the differing
3 claims that have been made.

4 Q. Did you review all of the materials
5 sources cited in Professor Klarevas' report?

6 A. No, I did not review all of them, no.

7 Q. Did you review all the sources cited
8 in Professor Cornell's report?

9 A. I reviewed all of the primary sources,
10 yes.

11 Q. But not the secondary sources as you
12 define them?

13 A. No.

14 Q. Did you review all the sources in
15 Professor Roth's report?

16 A. I reviewed all the primary sources. I
17 reviewed, I don't remember if it was secondary
18 sources, especially the ones in his book American
19 Homicide, which I went over rather carefully.

20 Q. Would you agree then that there are
21 studies that have found that bans on assault weapons
22 on large-capacity magazines reduce mass shooting
23 violence?

24 A. There are studies that have made that
25 claim. As I said, there are at least two studies

1 that have come to what might be considered at least
2 different conclusions on that.

3 Q. So you mentioned that you are citing
4 to your own sources in response to this opinion by
5 Professor Klarevas. Correct?

6 A. Yes.

7 Q. And what are those sources?

8 A. Would you repeat that question again.

9 Q. What are the sources you are relying
10 on?

11 A. Oh, concerning the effectiveness of
12 assault weapon bans?

13 Q. Yes.

14 A. One of them was by Roth and Koper and
15 this was one of these that was mandated by the
16 National Assault Weapons Ban. It required the
17 Department of Justice to examine the effectiveness of
18 the law and determine whether it actually made any
19 difference in reducing death, murders and gun
20 injuries. And that study when it was published in
21 1999 concluded that they could not demonstrate any
22 decline in the average number of victims for
23 incidents of gun murder or gun murder victims with
24 multiple wounds.

25 They found -- they invested, you know,

1 these sort of weapons were not commonly used before
2 the ban took effect and, therefore, they were not
3 surprised that, if there was any effect, it was very
4 modest at best.

5 Q. Any other sources?

6 A. Yes. This was the 2004 Updated
7 Assessment of the Federal Assault Weapons Ban by
8 again Christopher S. Koper. And in this case he
9 pointed to evidence that for one city, the City of
10 Jersey City, there might be some evidence making a
11 difference, but it starts out by saying, "Caution is
12 warranted in generalizing from these results because
13 they are based on a very small number of incidents,
14 six from one sample in one city."

15 Although in general he concluded that,
16 "Data on shots fired in gun attacks are quite
17 fragmentary and often inferred indirectly."

18 So he basically came to the conclusion
19 that the evidence was not fragmentary strong and the
20 only place where it was actually would be Jersey
21 City, and even there he was careful not to generalize
22 because data is really a small number of incidents.

23 Q. Are there any other sources besides
24 those two?

25 A. No.

1 Q. What years was the Federal Assault
2 Weapons Ban in effect?

3 A. 1994 and 2004.

4 Q. So the first cite -- the first report
5 you cite, which is the Roth and Koper -- and, by the
6 way, Roth is not Randolph Roth, it's a different
7 Roth?

8 A. No, it's not.

9 Q. The Roth and Koper report was from
10 1999, the first one?

11 A. Yes.

12 Q. So only five years into the Assault
13 Weapons Ban?

14 A. Correct.

15 Q. Okay. Do you know when in 2004 the
16 Federal Ban expired?

17 A. Not exactly, no. I can't remember.

18 Q. If I were to represent on September
19 13th, 2004, does that sound right?

20 A. You know, I know it happened, but I do
21 not remember it.

22 Q. Okay. But Professor Koper's second
23 report that you mentioned, the one from 2000, that
24 was published in 2004. Correct?

25 A. Right.

1 Q. Do you know if it was published prior
2 to the expiration of the Assault Weapons Ban in 2004
3 or after?

4 A. I believe it was 'cause it was
5 published in July of 2004 and it examined data from
6 1994 through 2003, so basically nine years of data.

7 Q. I'm sorry. So your answer was that
8 before the ban expired or after?

9 A. Before it expired and included data
10 from 1994 to 2003, so he was working with nine years
11 worth of data.

12 Q. So on page 32 of your report, you
13 state at the top, "If a nationwide ban on manufacture
14 and sale of LCMS seems to have no noticeable effect,
15 what would the actions of one state do." Is that
16 correct?

17 A. Yes.

18 Q. And you're again relying on the two
19 Koper reports that you mentioned in making that
20 statement?

21 A. Yes.

22 Q. Are you aware of whether since 2004
23 Professor Koper has published anymore recent work on
24 the effect of bans on assault weapons and LCMS?

25 A. I have not seen any. It may be out

1 there, doesn't mean that I've seen it though.

2 Q. I'm sorry. What was that?

3 A. It may be out there, but I did could
4 not find it when I searched.

5 Q. And if he concluded in more recent
6 articles that restrictions on assault weapons and
7 LCMs could help reduce incidents and severity of mass
8 shootings, would that have been useful information
9 for your report?

10 A. That would have been useful
11 information, yes.

12 Q. I want to turn now to page 35 of your
13 report.

14 A. Yes.

15 Q. At the very top you're referring to a
16 statement in Professor Klarevas' report and I quote,
17 "In addition to showing that the frequency and
18 lethality of high-fatality mass shootings are on the
19 rise nationally, the data point to another striking
20 pattern: both assault weapons and LCMs are being used
21 with increased frequency to perpetrate gun
22 massacres." Is that accurate?

23 A. Yes.

24 Q. And you are rebutting this claim as
25 well in your report?

1 A. Yes.

2 Q. And you referred before to the USA
3 Today database. Is that what you're using in your
4 rebuttal of this point?

5 A. Yes.

6 Q. Professor Klarevas' analysis on the
7 frequency at which assault weapons and LCMs are used
8 cover the time period 1991 to 2022. Correct?

9 A. Correct.

10 Q. And he was assessing high-fatality
11 mass shootings resulting in six or more deaths?

12 A. I would think they were double-digits.
13 Doesn't he use the term high-fatality refer to more
14 than ten, more than ten dead.

15 Q. Well, let's turn to page eight,
16 paragraph 13 of Professor Klarevas' report. That's,
17 again, what you're referring to in your report,
18 correct, paragraph 13?

19 A. Right, page eight.

20 Q. Yeah, page eight.

21 A. Okay.

22 Q. And the term he's using is
23 high-fatality mass shootings. Correct?

24 A. Yes.

25 Q. And in this particular paragraph he's

1 not referring or using the term double-digit, is he?

2 MR. SCHMUTTER: I'm sorry. What page
3 are we on?

4 MR. VANNELLA: Page eight.

5 MR. SCHMUTTER: Thank you.

6 Q. The term he uses on page eight are
7 high-fatality mass shootings. Correct?

8 A. Yes, but where does he define
9 high-fatality?

10 Q. Go to page five, Footnote 4, and I
11 quote, "As a subset of mass shootings, 'high-fatality
12 mass shootings' (also referred to as 'gun massacres')
13 are defined as shootings resulting in six or more
14 victims being shot to death, regardless of location
15 or underlying motive." Is that correct?

16 A. Yes.

17 Q. So when he's talking about
18 high-fatality mass shootings, he's talking about, as
19 he defines it, six or more deaths. Correct?

20 A. Okay. I'm assuming you have a
21 question.

22 Q. Well, I asked if that was correct.
23 Did you answer that question?

24 A. Yes, he does define this as six or
25 more.

1 Q. Right. And you used a different
2 outcome variable than he does, meaning, in other
3 words, you used mass shootings resulting in four or
4 more deaths. Is that correct?

5 A. Correct, yes. He uses four or more in
6 the definition of mass murder on page five and then
7 high-fatality mass shootings he defines as six or
8 more dead.

9 Q. Right. But your response to the six
10 or more dead is you're using the variable of four or
11 more deaths. Correct?

12 A. Yes. What page were we on in my
13 declaration?

14 Q. Page 35 of your report.

15 A. Okay.

16 Q. And your analysis on this issue uses
17 the timeframe of from 2006 to 2017. Correct?

18 A. Right.

19 Q. Are you aware the USA Today dataset
20 has more current information than namely the years
21 after 2017 up to the present?

22 A. It does, but when I was attempting to
23 interrogate that to find out the break down of
24 weapons types, I was not successful in finding that
25 information there. It's probably there, I just

1 wasn't able to figure it out.

2 Q. You criticized Professor Klarevas for
3 using a start date of 1991, but for your own analysis
4 you are relying on a 12-year timeframe from 2006 to
5 2017. Correct?

6 A. Yes, 'cause that was what was readily
7 available for current mass murders or reasonably
8 current mass murders.

9 Q. Your database also includes 2018
10 through 2022, doesn't it?

11 A. The current one does, yes. As I said,
12 I was not able to find in there the break down of
13 weapon types like they have for the, what they
14 published in 2018.

15 Q. On page 35 of your report, you state
16 that according to the USA Today database that three
17 out of four incidents in the dataset involve the use
18 -- involved a firearm." Correct?

19 A. Right.

20 Q. So that would reflect a preference for
21 using firearms to perpetrate mass murder in the
22 United States. Correct?

23 A. Yes, there's definitely a current
24 preference for that and as has been pointed out there
25 is some contagious element to the coverage of this

1 stuff. The more coverage there is of the use of
2 these sort of weapons they seem to become more
3 common.

4 Q. Are you saying USA Today dataset is
5 not necessarily accurate?

6 A. No, I'm saying that the increase in
7 that type of weapon may reflect the fact that the
8 more news coverage there is of these crimes, it tends
9 to give -- it sort of suggests, becomes more common.

10 Q. You're saying because mass shootings
11 in your view are publicized more, that encourages
12 more people to commit mass murder with firearms as
13 opposed to another means?

14 A. At least the mass murders are more
15 common because of it. This was a study that was done
16 by Sherry Towers at Arizona State University. I
17 discuss on page 37 that she found that the news
18 coverage seems to encourage mass murders because
19 people who are -- I suspect because people are
20 mentally unstable seeing this coverage respond to it
21 by saying, oh, boy, I could become famous too.

22 The 1989 mass murderer in Memphis,
23 Tennessee, the mass murderer left behind in his
24 apartment, he left issues of Time Magazine open to
25 coverage of the mass murder that took place in

1 Stockton a few months before. And he went so far as
2 to replace one AK-47 he had bought with another one
3 made by the same manufacturer as the one that was
4 used by the guy in Stockton. And he was underlining
5 the articles about this guy, which suggested a
6 contagious aspect to him. Certainly, the more
7 coverage you give to these sort of things, it would
8 appear from the work that Sherry Towers has done, it
9 makes it more likely they will happen in the future.

10 Q. Okay. Again, you're referring to an
11 article quoted on at page 37 to page 38?

12 A. Right.

13 Q. And that article is an NPR article
14 from January of this year?

15 A. Yes.

16 Q. And this article said there was a
17 correlation between mental health and publication of
18 mass shootings in the media?

19 A. No, of news coverage and -- news
20 coverage and mass murders and other mass murders.

21 Q. Didn't you raise the issue of mental
22 health concerning this article and the media
23 coverage?

24 A. Well, it's sort of say, Gee, I'm going
25 to go out and commit a mass murder, is that the sign

1 of a stable person, I don't think so. I mean, not
2 everyone who commits mass murder is clearly mentally
3 ill. In some cases we don't have no idea. But
4 certainly, many of them, as I mentioned here below,
5 were recognized beforehand as being mentally ill and
6 that mental illness plays a factor in their decisions
7 with mass murder.

8 Q. In your view, are there any other
9 reasons other than media coverage that mass murderers
10 would prefer to use firearms to commit a mass murder
11 when there are other means to do so?

12 A. I'm not sure what other reasons there
13 might be. I mean, certainly, there were a number of
14 mass murders in the last 20 years that used arson and
15 was quite effective. One of those was in New York
16 City where firearms were much harder to get ahold of.
17 So, big deal, 87 people are dead. They weren't shot,
18 they were burned to death. I don't see that as an
19 improvement.

20 Q. Does the USA Today database that you
21 utilize in your report code whether a firearm to
22 commit mass murder was an assault weapon or a
23 non-assault weapon?

24 A. Actually, it did. Let me find the
25 discussion there. Yes. What it didn't code exactly

1 for that, it coded for 8.6 percent were semiautomatic
2 rifles. Of course, that would include some assault
3 weapons, but not all semiautomatic firearms in the
4 United States that are non-assault weapons.

5 Q. Well, you yourself in your report when
6 you cite the 8.6 percent were semiautomatic rifles,
7 even you say only some of which qualify as assault
8 weapons. Correct?

9 A. Yes.

10 Q. So that --

11 A. I think one mass shooting that took
12 place in Pennsylvania some years back where the women
13 in question was using a 22 Rimfire semiautomatic
14 rifle.

15 Q. So, again, the USA Today database does
16 not code specifically whether it was an assault
17 weapon that was used as opposed to --

18 A. It does not.

19 Q. -- a semiautomatic weapon or some
20 other weapon?

21 A. This clearly puts an upper lid on the
22 percentage of possible assault weapons and rifles.

23 Q. It also doesn't code whether or not an
24 LCM was used in the commission of firearm mass murder
25 though, does it?

1 A. It does not.

2 Q. You state that after -- on the same
3 page -- that after reviewing the USA Today dataset
4 you determined that 0.9 percent of the incidents in
5 the dataset involved an automatic assault pistol.
6 Correct?

7 A. That was how the USA Today's database
8 described them as automatic assault pistols.

9 Q. And you also determined that according
10 to the dataset, 0.4 percent involved an automatic
11 rifle. Correct?

12 A. That was how USA Today described it as
13 automatic rifles.

14 Q. And you determined that 9.5 percent
15 involved single-shot rifles. Correct?

16 A. Right.

17 Q. Can you identify the incidents that
18 involved either an automatic assault pistol, an
19 automatic rifle, or single-shot rifles in the USA
20 Today dataset?

21 A. I do not identify them, no.

22 Q. So they don't use those terms in the
23 dataset. Correct?

24 A. They do use those terms in the list
25 they had.

1 Q. And they state that 0.9 percent of all
2 the incidents were automatic assault pistols?

3 A. Yes.

4 Q. And they state that 0.4 percent were
5 automatic rifles?

6 A. Yes.

7 Q. And 9.5 percent involved single-shot
8 rifles?

9 A. Yes.

10 See, if a person has a rifle, they
11 don't have to necessarily be close to kill a lot of
12 people, even a single-shot rifle.

13 MR. VANNELLA: Can we go off the
14 record and take another short break.

15 THE WITNESS: Sounds good to me.

16 MR. VANNELLA: Let's say around
17 quarter of or so.

18 MR. SCHMUTTER: Okay.

19 (A recess is taken at 3:34 p.m.;
20 resuming at 4:00 p.m.)

21 BY MR. VANNELLA:

22 Q. Back on the record. Mr. Cramer, did
23 you speak with Mr. Schmutter or anyone else
24 concerning the substance of your deposition testimony
25 during the break?

1 A. No.

2 Q. Going back to the USA Today study that
3 we've been discussing, you cite to the database on
4 the website. Correct?

5 A. Yes, it's basically an article which
6 included that information.

7 Q. And the website includes percentage
8 numbers including some of the ones that you list in
9 your report. Correct?

10 A. Right.

11 Q. Does it also include a page that sets
12 forth the individual incidents that its using in
13 generating its numbers?

14 A. It does have quite a bit of
15 information.

16 Q. I will -- how about this, I'll share
17 -- let me try sharing my screen. Do you see on my
18 screen --

19 A. Yes.

20 Q. Does this appear to be the web page
21 that contains or that is part of the USA Today
22 database?

23 A. Yes, it does.

24 Q. And this page states at the top,
25 "Explore the Date: U.S. Mass Killings Since 2006."

1 Correct?

2 A. Correct.

3 Q. And does it also include on the bottom
4 a list of specific incidents by date, place, state?

5 A. Uh-huh.

6 Q. How and type and victims?

7 A. Yes, it does have a break down of
8 that.

9 Q. Does the break down, when it says
10 "How," it uses, for example, the first two lists, the
11 first two cases, one from December 31st, 2017, the
12 "How" is described as a shooting. And the next one,
13 December 21st, 2017 is described as a stabbing.

14 Correct?

15 A. Correct.

16 Q. Does this list indicate anywhere what
17 the specific type of firearm, if any, was used in the
18 shooting incident?

19 A. Not that I can see.

20 Q. Are you aware of whether anywhere else
21 in the database there includes the raw data
22 concerning what type of firearm was used when it was
23 a mass shooting?

24 A. No, not that I could see.

25 Q. Would that have been useful to you in

1 checking the voracity of the USA Today database to
2 actually see specifically the cases broken down that
3 way?

4 A. It would have been useful, yes. In
5 some of these cases I did actually look up some of
6 these incidents. What happened is when I first got
7 started on this project, I thought it was going to
8 basically merge the data they had in their database
9 into mine, so I can have not only current, but I
10 subsequently decided that it made more sense to
11 basically stop at 2005 because there's stopped in
12 2006 is more complete and more recent.

13 Q. But when, for example, the USA Today
14 database concludes that 0.9 percent of the mass
15 murders in its database were as a result of automatic
16 assault pistols, it doesn't break down the specific
17 cases that it is using to derive that percentage.
18 Correct?

19 A. Not that I could find.

20 Q. How do you make the USA database a
21 secondary source?

22 A. Yes, I would say it's a secondary
23 source.

24 Q. You have no concerns about the
25 voracity of this secondary source though?

1 A. Not particularly because USA Today,
2 there could have just been just a discussion of gun
3 mass murders, but they chose to include all mass
4 murders including the non-gun ones, which suggests to
5 me that they did not have any particular motive in
6 their choice of how they select the data.

7 Q. Well, but you don't know exactly how
8 they selected the data and reached the numbers of
9 mass murders even in total exactly?

10 A. They did that based on information
11 from all of their newspapers around the country
12 'cause USA Today is part of the Gannett chain and
13 they have newspapers, local papers all over the
14 country.

15 Q. Is it possible that the different
16 databases the different newspapers would use, the
17 numbers might be different than what USA Today
18 reported?

19 A. It's entirely possible. You're always
20 working with this problem. You don't really have --
21 you never have what you would call a complete set of
22 data. There are so few newspapers that are published
23 that perhaps half of them probably did not get
24 reported anywhere. Of course, there were probably a
25 lot of mass murders that took place that did not get

1 reported because the bodies were never found. I have
2 more than a few incidents that I found where someone
3 found the bodies in the woods quite a bit later, or
4 one case someone was doing repairs to a house and
5 they pulled up the foundation and found several
6 bodies buried under the foundation.

7 MR. VANNELLA: All right. I don't
8 have any further questions at this time. Thank you.

9 MR. SCHMUTTER: I think I just have a
10 couple of questions.

11 EXAMINATION

12 BY MR. SCHMUTTER:

13 Q. At the beginning of the deposition,
14 you were asked if you were billing for any other
15 services other than the deposition and preparing your
16 report. Do you recall being asked a question along
17 those lines?

18 A. Yes, I believe so.

19 Q. Okay. Will you be billing for trial
20 testimony if you give trial testimony?

21 A. If you want me to.

22 Q. Would you be billing for -- are you
23 billing for deposition prep?

24 A. That was my intention with it. I
25 mean, there wasn't a lot of deposition prep.

1 Q. Are you billing for consultation,
2 discussion of report, discussion of data, discussion
3 of issues?

4 A. I had not actually planned on doing
5 that.

6 Q. Okay. You were asked a number of
7 times during the deposition about who your rebuttal
8 report responds to, who you were rebutting and what
9 you looked at and reviewed in connection with
10 preparing your report. Do you remember being asked
11 that a number of times?

12 A. Yes.

13 Q. And on some occasions you were asked
14 those questions, you were asked to answer those
15 questions from memory. Do you remember that?

16 A. Yes.

17 Q. And sometimes you were asked those
18 questions in the context of actually looking at your
19 report. Do you recall that?

20 A. Yes.

21 Q. Okay. So I'm going to ask you to just
22 look through your report and I'm going to ask you,
23 does your report reflect which of the defendants'
24 expert witnesses you're explicitly saying that you're
25 rebutting?

1 A. Well, Saul Cornell, Louis Klarevas,
2 Roth.

3 Q. And you also discussed a Footnote
4 discussing Dennis Baron. Correct?

5 A. Yes.

6 Q. Okay. So it's fair to say that you're
7 at least rebutting those four people in your
8 testimony?

9 MR. VANNELLA: Objection. You could
10 answer it.

11 A. Well, I'm rebutting Baron. He made
12 the same argument that Cornell was making.

13 Q. Right. Now, the fact that you haven't
14 named explicitly the others of defendants' experts in
15 your report, does that mean you agree with the
16 conclusions of those other experts?

17 A. No, it means I was not asked to write
18 rebuttals for those declarations.

19 Q. Does the fact that you don't
20 specifically name those experts in your rebuttal
21 report mean that it cannot be the case that some of
22 your opinions might bear on their opinions?

23 MR. VANNELLA: Objection.

24 MR. SCHMUTTER: What's the objection?

25 MR. VANNELLA: I don't need to give an

1 objection, but just because you did on all three
2 depositions. I'm objecting.

3 MR. SCHMUTTER: No, I understand that.
4 What's the objection?

5 MR. VANNELLA: The objection is his
6 report speaks for itself, does it not. Do you
7 understand the requirements of Rule 26, Dan?

8 MR. SCHMUTTER: That's not what I
9 asked. That's not what I asked him. I'll rephrase
10 the question so...

11 MR. VANNELLA: I know you didn't quote
12 from Rule 26 in your question, but his report speaks
13 for itself and you know what the requirements are for
14 an expert report.

15 MR. SCHMUTTER: I understand that.
16 BY MR. SCHMUTTER:

17 Q. Mr. Cramer, let me ask you the
18 question a different way.

19 Does the fact that your report does
20 not name the other experts mean that the opinions you
21 expressed have no bearing on the opinions of
22 defendants' other experts?

23 MR. VANNELLA: Objection. You can
24 answer if you can.

25 A. I have not expressed any opinion at

1 all.

2 Q. All right. But that's actually a
3 different question. Is it possible that an opinion
4 you give in your report and in your deposition and at
5 trial could bear on something another expert says?

6 A. Yes.

7 Q. Looking through your report during the
8 course of this deposition, including just now, does
9 it refresh your recollection on what you may have
10 reviewed in preparing your report?

11 A. Yes, it does refresh my recollections,
12 but basically it was the four declarations that I
13 made reference to; Roth, Cornell, Klarevas, and
14 Baron.

15 MR. SCHMUTTER: Okay. I have no
16 further questions.

17 MR. VANNELLA: I'm not finished yet,
18 Mr. Cramer. I just have one on redirect.

19 EXAMINATION

20 BY MR. VANNELLA:

21 Q. Is it your intent to offer any
22 opinions in this matter other than against those four
23 experts that you just mentioned?

24 A. It is not my intention; however, if
25 anyone asks me questions where I can express my

1 opinion or knowledge, some of which may not be
2 strictly speaking just historical, I'd be more than
3 willing to do so.

4 Q. But you did not do so in your Rebuttal
5 Report?

6 A. No, my rebuttal report was intended to
7 answer the specific statements about history and in
8 some cases I definitely went a little beyond just the
9 historical evidence, but relied on things which were
10 I think are common knowledge among most people, but
11 I'm beginning to think they're not. For instance,
12 magazines are a fundamental part of semiautomatic
13 weapons.

14 And I did do one experiment. I spent
15 a little bit of time seeing how fast I could swap
16 magazines out on an AR-15, so I could answer that it
17 could be done in less than a second.

18 Q. You consider that a scientific test or
19 just for your general interest?

20 A. Well, basically, it's a statement of
21 fact that I can make that it's possible for a person
22 to change magazines on an AR-15 in less than a
23 second. And the same is true for most semiautomatic
24 pistols that I own, is they can all be changed in
25 less than a second; that's why I say the magazine

1 capacity does not dramatically change how many shots
2 you can fire in a limited amount of time.

3 Q. That was, again, your experiment not
4 as a historian, but as a gun owner?

5 A. Right.

6 Q. And your intent in your deposition
7 today was not to address any experts other than Roth,
8 Cornell, Baron, and Klarevas?

9 A. Right.

10 MR. SCHMUTTER: Objection. Objection.
11 Let me finish the objection. Objection. You're
12 taking the deposition. He came here at your Notice.
13 It goes to the issue of intent.

14 BY MR. VANNELLA:

15 Q. Were you asked any questions about,
16 from either me or Mr. Schmutter, regarding any
17 experts other than those four?

18 A. I think you did. I've heard you
19 mention the names of some of the others, although you
20 did not ask me questions that I recall about the
21 content of their declarations.

22 Q. Well, you didn't review any of them,
23 you just said, other than those four?

24 A. No.

25 Q. And your report again only addresses

1 those four experts?

2 A. Yes.

3 Q. Do you -- Mr. Schmutter asked you
4 about if you were going, intending to bill for trial
5 testimony. How much would you bill for trial
6 testimony?

7 A. I think based on what a wonderful
8 experience this has been probably 250 an hour. I'd
9 prefer dental work to this.

10 Q. And how much were you billing for any
11 preparation for this deposition today?

12 A. One fifty an hour.

13 MR. VANNELLA: I don't have any
14 further questions.

15 Do you, Mr. Schmutter?

16 MR. SCHMUTTER: I do not.

17 MR. VANNELLA: Mr. Cramer, thank you
18 very much for your time today, especially considering
19 that, although we started at ten a.m. on the Eastern
20 Seaboard, you started from where you are at eight
21 a.m., so it's an extra early morning for you and we
22 appreciate your time.

23 THE WITNESS: Okay. Thank you.

24 MR. SCHMUTTER: Thank you.

25 (The deposition concluded at 4:16 p.m. (EST))

C E R T I F I C A T E

I, MARY A. VARGAS, a Certified Court Reporter and Notary Public within and for the State of New Jersey, do hereby certify:

That CLAYTON E. CRAMER, the witness whose deposition is hereinbefore set forth, was duly sworn by me and that such deposition is a true record of the testimony given by the witness.

I further certify that I am not related to any of the parties to this action by blood or marriage, and that I am in no way interested in the outcome of this matter.



MARY A. VARGAS

CCR No. 30X100173700

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1 Daniel L. Schmutter, Esq.

2 dschmutter@hartmanwinnicki.com

3 August 22, 2023.

4 RE: Blake Ellman, Et Al. v. Matthew Platkin, Et Al.

5 8/21/2023, Clayton E. Cramer (#6058311)

6 The above-referenced transcript is available for
7 review.

8 Within the applicable timeframe, the witness should
9 read the testimony to verify its accuracy. If there are
10 any changes, the witness should note those with the
11 reason, on the attached Errata Sheet.

12 The witness should sign the Acknowledgment of
13 Deponent and Errata and return to the deposing attorney.
14 Copies should be sent to all counsel, and to Veritext at
15 cs-ny@veritext.com.

16
17 Return completed errata within 30 days from
18 receipt of testimony.

19 If the witness fails to do so within the time
20 allotted, the transcript may be used as if signed.

21
22 Yours,

23 Veritext Legal Solutions
24
25

1 Blake Ellman, Et Al. v. Matthew Platkin, Et Al.

2 Clayton E. Cramer (#6058311)

3 E R R A T A S H E E T

4 PAGE_____ LINE_____ CHANGE_____

5 _____

6 REASON_____

7 PAGE_____ LINE_____ CHANGE_____

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9 REASON_____

10 PAGE_____ LINE_____ CHANGE_____

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18 REASON_____

19 PAGE_____ LINE_____ CHANGE_____

20 _____

21 REASON_____

22 _____

23 _____

24 Clayton E. Cramer

Date

25 _____

1 Blake Ellman, Et Al. v. Matthew Platkin, Et Al.

2 Clayton E. Cramer (#6058311)

3 ACKNOWLEDGEMENT OF DEPONENT

4 I, Clayton E. Cramer, do hereby declare that I
5 have read the foregoing transcript, I have made any
6 corrections, additions, or changes I deemed necessary as
7 noted above to be appended hereto, and that the same is
8 a true, correct and complete transcript of the testimony
9 given by me.

10
11 _____
12 Clayton E. Cramer

_____ Date

13 *If notary is required

14 SUBSCRIBED AND SWORN TO BEFORE ME THIS

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

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REBUTTAL EXPERT REPORT OF CLAYTON CRAMER
JULY 17, 2023

I. Qualifications

My M.A. in History is from Sonoma State University in California. I teach history at the College of Western Idaho. I have nine published books, mostly scholarly histories of weapons regulation. My 18 published articles (mostly in law reviews) have been cited in *D.C. v. Heller* (2008), *McDonald v. Chicago* (2010), *Jones v. Bonta* (9th Cir. 2022), *Young v. State* (9th Cir. 2021), *State v. Sieyes* (Wash. 2010), *Senna v. Florimont* (N.H. 2008), *Mosby v. Devine* (R.I. 2004). A comprehensive list of my scholarly works and citations can be found at <https://claytoncramer.com/scholarly/journals.htm>.

In several cases, my work has been cited in defense of laws limiting firearms ownership: *State v. Roundtree* (Wisc. 2021), *State v. Christen* (Wisc. 2021), *King v. Sessions* (E.D.Penn. 2018).

I am being compensated for services performed in the above-entitled case at an hourly rate of \$150 for expert reports and declarations. My compensation is not contingent on the results of my analysis or the substance of any testimony.

My CV is attached hereto as Exhibit A.

II. Saul Cornell

This Rebuttal to Prof. Cornell reveals multiple errors that demonstrate a limited knowledge of the colonial period and legal history.

A. Carrying Over English Common Law

At p. 3, Cornell asserts “Each of the new states, either by statute or judicial decision, adopted multiple aspects of the common law, focusing primarily on those features of English law

that had been in effect in the English colonies for generations.” His footnote lists “9 STATUTES AT LARGE OF PENNSYLVANIA 29-30 (Mitchell & Flanders eds. 1903); FRANCOIS XAVIER MARTIN, A COLLECTION OF STATUTES OF THE PARLIAMENT OF ENGLAND IN FORCE IN THE STATE OF NORTH-CAROLINA 60–61 (Newbern, 1792); *Commonwealth v. Leach*, 1 Mass. 59 (1804).”

“9 STATUTES AT LARGE OF PENNSYLVANIA 29-30” carried over English law but with the important provision:

all and every person and persons whosoever are hereby enjoined and required to yield obedience to the said laws as the case may require *until the said laws or acts of general assembly respectively, shall be repealed or altered* or until they expire by their own limitation and the common law and such of the statute laws of England as have heretofore been in force in the said province, except as is hereafter excepted.¹ [emphasis added]

Certainly, the Pennsylvania Constitution of 1790, with its guarantee of a right to keep and bear arms,² qualifies as alteration of English common law concerning arms.

“FRANCOIS XAVIER MARTIN, A COLLECTION OF STATUTES OF THE PARLIAMENT OF ENGLAND IN FORCE IN THE STATE OF NORTH-CAROLINA 60–61 (Newbern, 1792).” The legislature tasked Martin to sift through all existing British statutes that *might* have some applicability to North Carolina. “I began at Magna Charta. The old statutes, before that period are generally acknowledged to be rather a matter of mere curiosity, and scarcely an authentic record of any of them is extant.... I have inserted every statute unrepealed by subsequent acts, or which did not appear so glaringly repugnant to our system of government as to warrant its suppression.”³ North Carolina’s 1776 Constitution guarantees “That the people have a right to bear arms, in defense of the State”⁴ Again, this guarantee concerning the right to bear arms overrode English

¹ 9 STATUTES AT LARGE OF PENNSYLVANIA 30 (1903).

² Penn. Const., Art. IX, § 21 (1790).

³ Martin, A COLLECTION OF STATUTES OF THE PARLIAMENT OF ENGLAND IN FORCE IN THE STATE OF NORTH CAROLINA iii (1792).

⁴ North Carolina Const. Art. XVII (1776).

common law. Furthermore pp. 60-61 in Martin's collection is the Statute of Northampton disqualified for relevance by *Bruen*.⁵

When the North Carolina Supreme Court heard *State v. Newsom* (1844), one of the claims made by the black defendant was that the 17th article the Bill of Rights of North Carolina protected his right to carry a shotgun. The North Carolina Supreme Court in deciding in this case, did not question whether the right to keep and bear arms was individual in nature. Instead, they ruled that the defendant's color was the deciding principle, taking precedence over the text. Referring to the authors of the North Carolina Constitution: "They must have felt the absolute necessity of the existence of a power somewhere, to adopt such rules and regulations, as the safety of the community might, from time to time, require."⁶

"*Commonwealth v. Leach*, 1 Mass. 59 (1804)": The decision did nothing to make English common law applicable in Massachusetts:

Hooker, for the prosecution, conceded that justices of the peace were officers created by statute, and that their jurisdiction and powers were wholly dependent upon the statutes; 2 Hawk. P. C. c. 8, 13 , &c. But he contended that their jurisdiction here was not limited to those offences which are expressly, and by name in our own statutes, made cognizable by them; on the contrary, that it extended to all cases in which justices of the peace in *England* had jurisdiction by any of the statutes of that country which were passed previous to the emigration of our ancestors; which were to be considered as a part of our common law; that this was strongly implied in the act for establishing Courts of General Sessions of the Peace, passed July 3, 1782, (stat. 1782, c. 14 ,) by the first section of which" they are empowered to hear and determine all matters relative to the conservation of the peace, and the punishment of such offences as are cognizable* by them at common law, or by the acts and laws of the legislature, and to give judgment, &c.

In this act, the term *common law* cannot mean the common law of *England*, because justices of the peace there are not common law officers; it must,

⁵ *New York State Rifle & Pistol Assn, Inc. v. Bruen*, 142 S. Ct. 2111, 2139, 2140 (2022).

⁶ *State v. Newsom*, 27 N.C. (5 Ired.) 250, 255 (1844).

therefore, mean our common law; and on this subject, our common law must be precisely what the *statute* law of *England* was at the time of the emigration of our ancestors from that country. The statutes which were previous to that time enacted in England, and which define or describe the authorities, powers, and jurisdiction of justices of the peace, give to them, expressly, cognizance of divers offences which were offences at common law; among which are trespasses.⁷ [emphasis in original]

Clearly, only *some* parts of English law were common with Massachusetts law. Where Massachusetts law had differed, English law was no longer valid.

A later digest of Massachusetts decisions includes “*Commonwealth v. Leach*, 1 Mass. 59 (1804)” in its list of “English Statutes Adopted Here.”⁸ Only individual *statutes*, not necessarily all of common law applied in Massachusetts, or there would be no need to have a detailed list.

Cornell has attributed this carryover of English law as it was in 1776 to “[e]ach of the new states” from sources in three states, none of which fits his claim. Cornell does not understand his sources.

The U.S. Supreme Court has also emphasized how little significance English common law has compared to a constitution: “Legislation is the exercise of sovereign authority. High and important powers are necessarily vested in the Legislative body; whose acts, under some forms of government, are irresistible and subject to no control. In England, from whence most of our legal principles and legislative notions are derived, the authority of the Parliament is transcendent and has no bounds.”⁹

⁷ *Commonwealth v. Leach*, 1 Mass. 59 (1804).

⁸ 2 MASSACHUSETTS DIGEST: BEING A DIGEST OF THE DECISIONS OF THE SUPREME JUDICIAL COURT OF MASSACHUSETTS, FROM THE YEAR 1804 TO THE YEAR 1857. 661 (1863).

⁹ *Vanhorne's Lessee v. Dorrance*, 2 U.S. (2 Dall.) 304, 308, 28 F. Cas. 1012 (C.C.D. Pa. 1795).

B. Conserving the Peace

Prof. Cornell on p. 3 quotes Blackstone's COMMENTARIES about how the common law "hath ever had a special care and regard for the conservation of the peace; for peace is the very end and foundation of civil society." True enough, but Blackstone's quote is from a discussion of:

[S]ubordinate magistrates, whom I am to consider justices of the peace... Of these, some had, and still have, this power annexed to other offices which they hold; others had it merely by itself, and were thence named *custodes* or *conservatores pacis*. Those that were so *virtute officii* still continue: but the latter sort are superseded by the modern justices.¹⁰

While perhaps an accurate statement of Blackstone's view of the common law, it seems a good case can be made that it is a retrospective description, and irrelevant to English law in Blackstone's time and therefore irrelevant to American law.

When Blackstone listed the absolute rights that every Englishman enjoyed, peace was not on the list, but "5. THE fifth and last auxiliary right of the subject, that I shall at present mention, is that of having arms for their defense..."¹¹ Blackstone does not identify peace as one of these "Rights of Persons" in Book I, ch. 1:

The rights themselves, thus defined by these several statutes, consist in a number of private immunities; which will appear, from what has been premised, to be indeed no other, than either that residuum of natural liberty, which is not required by the laws of society to be sacrificed to public convenience; or else those civil privileges, which society hath engaged to provide, in lieu of the natural liberties so given up by individuals.¹²

If Blackstone is of great importance for determining what was important in English and therefore American law, this core right of self-defense deserves *at least* as much weight as Cornell's apparently out of context of quote from Blackstone.

¹⁰ William Blackstone, 1 COMMENTARIES ON THE LAWS OF ENGLAND 143 (1775).

¹¹ *Id.*, at 143.

¹² *Id.*, at 121.

At p. 6:

The most basic right of all at the time of Founding was the right of the people to regulate their own internal police. Although modern lawyers and jurists are accustomed to thinking of state police power, the Founding generation viewed this concept as a right, not a power. The first state constitutions clearly articulated such a right — including it alongside more familiar rights such as the right to bear arms. Pennsylvania’s Constitution framed this estimable right succinctly: “That the people of this State have the sole, exclusive and inherent right of governing and regulating the internal police of the same.” The term police encompassed more than law enforcement, it also included the right of the people to legislate for the common good.

The Pennsylvania Constitution included a guarantee of a right to keep and bear arms,¹³ a guarantee “[N]o part of a man’s property can be justly taken from him, or applied to public uses, without his own consent, or that of his legal representatives”¹⁴ and a guarantee of “a right to freedom of speech, and of writing, and publishing their sentiments.”¹⁵ These seem to be pretty large exceptions to Cornell’s imagined right “to legislate for the common good.” Perhaps Cornell’s understanding of state police power is wrong or at least more limited than he imagines?

Pennsylvania Supreme Court decisions portray the state’s police power somewhat more narrowly than Cornell: “Its exercise may be limited by the frame or constitution of a particular government, but its natural limitations, in the absence of a written constitution, are found in the situation and necessities of the state, and these must be judged of in the first instance by the government itself.”¹⁶

What the people, and ideally the legislature as well, consider “laws to promote public health and safety” has been restrained by both state constitution bills of rights and the U.S. Bill of Rights from the very beginning. Rep. James Madison, author of the Bill of Rights, is also

¹³ Penn. Const. Art. 11 (1776).

¹⁴ Penn. Const. Art. 8 (1776).

¹⁵ Penn. Const. Art. 12 (1776).

¹⁶ *Commonwealth v. Vrooman*, 164 Pa. 306, 316 (Penn. 1894).

remembered for his MEMORIAL AND REMONSTRANCE, ON THE RELIGIOUS RIGHTS OF MAN arguing that Virginia should disestablish the Anglican Church:

Either then, we must say that the will of the Legislature is the only measure of their authority, and that, in the plenitude of this authority, they may sweep away all our fundamental rights; or, that they are bound to leave this particular right untouched and sacred: either we must say that they may control the freedom of the press, may abolish the trial by jury, may swallow up the Executive and Judiciary powers of the State; nay, that they may despoil us of our right of suffrage, and erect themselves into an independent and hereditary assembly: or, we must say, that they have no authority to enact into law the bill under consideration.¹⁷

If Cornell really believes in this police power “to promote the common good,” I look forward to his stalwart defense of state laws mandating racially segregated public schools and public accommodations, censorship of dirty books, prohibitions on sodomy, one man/one woman marriage laws, and bans on transgender sports. It is hard to consider a person a legal scholar or historian who does not understand that the American experiment in democracy has always been restrained by a recognition that majorities can and do make mistakes. This is the reason that every state constitution today, many of the Revolutionary state constitutions, and the U.S. Constitution has a Bill of Rights.

At pp. 8-9, Cornell quotes the Second Amendment and asserts, “Thus, from its outset, the Second Amendment recognizes both the right to keep and bear arms and the right of the people to regulate arms to promote the goals of preserving a free state.” The first clause of the Second Amendment references not well-regulated arms but a “well-regulated militia.”

Heller pointed out that, “The Second Amendment is naturally divided into two parts: its prefatory clause and its operative clause. The former does not limit the latter grammatically, but

¹⁷ James Madison, A MEMORIAL AND REMONSTRANCE, ON THE RELIGIOUS RIGHTS OF MAN; WRITTEN IN 1784-5, AT THE REQUEST OF THE RELIGIOUS SOCIETY OF BAPTISTS IN VIRGINIA 41 (1828).

rather announces a purpose.”¹⁸ Either Cornell is misreading the Second Amendment’s text or he is unfamiliar with the *Heller* decision. In either case, he has demonstrated his lack of expertise in this subject.

Cornell at pp. 7-8 cites the Burns’ New Law Dictionary definition of “liberty,” but it does not match any American concept of that term. If anything, it is a profoundly anti-American concept: privilege granted to a select few:

LIBERTY, is a privilege held by grant or prescription, by which men enjoy some benefit beyond the ordinary subject.¹⁹

At p. 8, quoting a “patriotic revolutionary era orator,” “True liberty consists, not in having *no government*, not in a destitution of all law, but in our having an equal voice in the formation and execution of the laws, according as they effect [sic] our persons and property.” The relevance of this quote to this case seems confused. The plaintiffs are not arguing for no government or a “destitution of all law,” but a disagreement about *this* law. Cornell’s reasoning could be equally applied to laws prohibiting free speech, or opponents of warrantless searches; First Amendment or Fourth Amendment opponents of unlimited power to the government are not arguing for anarchy.

At p. 11, Cornell quotes Jud Campbell that “Rather, retained natural rights were aspects of natural liberty that could be restricted only with just cause and only with consent of the body politic.” What Cornell and perhaps Campbell seem to have missed is that the Bill of Rights limits democracy because a majority can, and often does, abuse its power. The recent consequences of panic after 9/11 should be a reminder that even well-intentioned polity’s can blow it.

Cornell continues: “In fact, without robust regulation of arms, it would have been impossible to implement the Second Amendment and its state analogues. Mustering the militia required keeping

¹⁸ *D.C. v. Heller*, 554 U.S. 570, 577 (2008).

¹⁹ Richard Burn and John Burn, A NEW LAW DICTIONARY 79 (1792).

track of who had weapons and included the authority to inspect those weapons and fine individuals who failed to store them safely and keep them in good working order.” Mustering the militia required no such recordkeeping. Colonial and state militia laws did not keep track of who was armed. They imposed a duty to be armed and to show up with those arms on muster day or face fines for failure.²⁰ I am unaware of any safe storage laws of this period, and Cornell cites only a secondary source for a rather important claim. I have a pretty complete collection of colonial and Revolutionary militia laws²¹ and there are no such provisions that I can find.

At pp. 12-13: “The plain text of the Second Amendment not only protects the right to keep and bear arms, it acknowledges that this right is designed to encourage the security of a free state. Actions that undermine this security are clearly not protected by the Amendment.” It is unclear to what Cornell refers. Mass murder (the posited purpose the assault weapons ban) certainly endangers individuals; in no way does it endanger “the security of a free state.”

It is certainly true that a group of men who violently overthrew their lawful government had a strong sympathy for the right of put-upon citizens to rise up in rebellion. The New Hampshire Constitution of 1784: “The doctrine of non-resistance against arbitrary power, and oppression, is absurd, slavish, and destructive of the good and happiness of mankind.”²²

James Madison, author of the Second Amendment, articulated a revolutionary model of arms ownership in *Federalist* 46. At the time, Madison was arguing that the widely demanded Bill of Rights as a limit on the new government’s powers were unnecessary: “The only refuge left

²⁰ A few examples: 1 THE PUBLIC RECORDS OF THE COLONY OF CONNECTICUT, 1636-1776 15 (1850) (“It, it is ordered that all persons shall bare Arms that are above the age of sixteen years except they do tender a sufficient excuse [to] the Corte & the Cort allow the same.”); Charles J. Hoadly, ed., RECORDS OF THE COLONY AND PLANTATION OF NEW HAVEN, FROM 1638 TO 1649 25-26 (1857) (“It is ordered that every one that bares arms shall be completely furnished with arms (viz), a musket, a sword, bandoleers, a rest, a pound of powder, 20 bullets fitted to their musket, or 4 pound of pistol shot or swan shot at least, and be ready to show them in the market place upon Monday the 16th of this Month before Captain Turner and Lieutenant Seely under the penalty 20 s fine for every default or absen[ce].”)

²¹ Clayton E. Cramer, *Militia Statutes*, <https://claytoncramer.com/primary/primary.html#MilitiaLaws>, last accessed July 15, 2023/

²² New Hampshire Const. Part I, .Art. 10 (1784).

for those who prophesy the downfall of the State governments is the visionary supposition that the federal government may previously accumulate a military force for the projects of ambition.” His response to why this was not a serious danger?

Extravagant as the supposition is, let it however be made. Let a regular army, fully equal to the resources of the country, be formed; and let it be entirely at the devotion of the federal government; still it would not be going too far to say, that the State governments, with the people on their side, would be able to repel the danger. *The highest number to which, according to the best computation, a standing army can be carried in any country, does not exceed one hundredth part of the whole number of souls; or one twenty-fifth part of the number able to bear arms. This proportion would not yield, in the United States, an army of more than twenty-five or thirty thousand men. To these would be opposed a militia amounting to near half a million of citizens with arms in their hands, officered by men chosen from among themselves, fighting for their common liberties, and united and conducted by governments possessing their affections and confidence. It may well be doubted, whether a militia thus circumstanced could ever be conquered by such a proportion of regular troops.* Those who are best acquainted with the last successful resistance of this country against the British arms, will be most inclined to deny the possibility of it. *Besides the advantage of being armed, which the Americans possess over the people of almost every other nation, the existence of subordinate governments, to which the people are attached, and by which the militia officers are appointed, forms a barrier against the enterprises of ambition, more insurmountable than any which a simple government of any form can admit of. Notwithstanding the military establishments in the several kingdoms of Europe, which are carried as far as the public resources will bear, the governments are afraid to trust the people with arms.* And it is not certain, that with this aid alone they would not be able to shake off their yokes. But were the people to possess the additional advantages of local governments chosen by themselves, who could collect the national will and direct the national force, and of officers appointed out of the militia, by these governments, and attached both to them and to the militia, it may be affirmed with the greatest assurance, that the throne of every tyranny in Europe would be speedily overturned in spite of the legions which surround it.²³ [emphasis added]

Responding to Shays’ Rebellion in 1786, Jefferson argued that it was not such a bad thing:

et where does this anarchy exist? Where did it ever exist, except in the single instance of Massachusetts? And can history produce an instance of a rebellion so honorably conducted? I say nothing of its motives. They were founded in ignorance, not wickedness. God forbid we should ever be 20 years without such a rebellion. The people cannot be all, and always, well informed. The part which

²³ James Madison, *Federalist* 46.

is wrong will be discontented in proportion to the importance of the facts they misconceive. If they remain quiet under such misconceptions it is a lethargy, the forerunner of death to the public liberty. We have had 13. states independent 11 years. There has been one rebellion. That comes to one rebellion in a century and a half for each state. What country before ever existed a century and half without a rebellion? *And what country can preserve its liberties if their rulers are not warned from time to time that their people preserve the spirit of resistance? Let them take arms. The remedy is to set them right as to facts, pardon and pacify them. What signify a few lives lost in a century or two?* The tree of liberty must be refreshed from time to time with the blood of patriots and tyrants. It is its natural manure.²⁴ [emphasis added]

To summarize, if that national government created a standing army, it would be grossly outnumbered by the armed population who with the assistance of state governments directing it would rapidly overthrow such a project of ambition.

If Cornell is arguing that assault weapons might be a danger to the security of the government, James Madison and Thomas Jefferson would certainly agree and likely applaud. This is doubtless unpleasant news to those in charge of our current governments, but it was clearly part of the Founders' mindset.

At p. 10: "The individual states also imposed loyalty oaths, disarming those who refused to take such oaths. No state imposed a similar oath as pre-requisite to the exercise of First Amendment-type liberties."

In 1777, Pennsylvania responded to concerns that Loyalists might be a fifth column by passing a law that provided that those of militia age refusing to swear an oath of loyalty to the Revolutionary governments were prohibited from "holding any office or place of trust in this state, serving on juries, suing for any debts, electing or being elected, buying, selling or transferring any lands, tenements or

²⁴ Thomas Jefferson to William Smith, Nov. 13, 1787, Library of Congress, <https://www.loc.gov/exhibits/jefferson/105.html>, last accessed July 17, 2023.

hereditaments, and shall be disarmed by the lieutenant or sub-lieutenant of the city or counties respectively.”

Massachusetts’ similar Test Act:

That every male person above sixteen years of age, resident in any town or place in this colony, who shall neglect or refuse to subscribe a printed or written declaration, of the form and tenor hereinafter prescribed, upon being required thereto by the committee of correspondence, inspection and safety, shall be disarmed, and have taken from him, in manner hereafter directed, all such arms, ammunition and warlike implements, as, by the strictest search, can be found in his possession or belonging to him...²⁵

Like its cousins in other states, refusing the oath disqualified one for any public office, work as a minister, voting, or teaching.²⁶ Cornell could easily use these wartime emergency acts as justification today for restrictions on transferring property, voting, teaching, or preaching the gospel.

Abuses of civil liberties were widespread during the chaos of the Revolution. Thomas Jefferson drafted a bill of attainder passed by the Virginia Legislature in 1778.²⁷ In Cornell’s model, the U.S. Constitution’s prohibition on Bills of Attainder²⁸ can be safely ignored.

C. Arms vs. Accoutrements²⁹

1. Cartridge-Boxes Are Not Magazines

At pp. 13-15, Cornell seeks to distinguish magazines from arms, by observing that cartridge-boxes were considered accoutrements, not arms. This I do not dispute. A rifleman of 1791 could easily dispense with a cartridge-box and carry cartridges in his pocket. He might simply carry black powder in a powder horn and bullets in his pocket. A 1791 cartridge-box is

²⁵ 5 Acts and Resolve, Public and Private, of the Province of the Massachusetts Bay 479 (1886), ch. 21.

²⁶ Ibid. 481.

²⁷ William M. Burwell, Address Delivered Before the Society of Alumni of the University of Virginia 446-47 (1847).

²⁸ U.S. Const., Art. I, § 9, cl. 3.

²⁹ This section applies equally to the report and contentions of Dennis Baron.

functionally identical to a modern cartridge box. It is a place where you store ammunition until you are ready to use it. No amount of clever use of search terms in large bodies of text will change this.

2. Magazines Are Part of the Firearm

Magazines in a semiautomatic firearm (or even a lever action or bolt-action firearm) regardless of capacity or if they are detachable are a fundamental part of the weapon. Without a magazine, you must reload for every shot. This is a slow and inconvenient process. For target shooting, this might be an acceptable choice. For self-defense or hunting, this is impractical. If the court doubts this, ask your bailiff if he would want to maintain order in the courtroom with a single-shot pistol.

All semiautomatic firearms come with a magazine, either detachable or as part of the gun for fixed-magazine firearms (usually shotguns and some rifles). I have never seen a semiautomatic firearm sold without a magazine; it is part of the gun. And, in fact, the very New Jersey magazine law being challenged in this lawsuit defines “Large capacity ammunition magazine” in terms of its function to feed ammunition “continuously and directly therefrom into a semi-automatic firearm.” N.J.S. 2C:39-1(y). The banned magazines are feeding devices and are part of the firearms. They are nothing like cartridge boxes.

If the question is whether a Large Capacity Magazine or a detachable magazine is necessary, again, ask a bailiff or any police officer. While the risks they face are more common than an ordinary citizen, they are not fundamentally different in quality. Someone who breaks into your home or assaults you on the street may require more than one shot to cause them to cease being a threat to your life. Under the stress of a life-threatening incident, not every shot will hit

your attacker; not every shot that hits your attacker will be sufficiently well-placed to stop the attack. If there are multiple attackers, a ten round magazine may not be sufficient.

Even with an LCM ban, the effectiveness of LCM bans for reducing mass murder is not well-established. In the aftermath of the 2018 Parkland shooting:

Several state legislators who visited the school with crime-scene investigators said they learned from police that Cruz's rifle was not top-of-the-line, perhaps explaining the malfunction.

The "weapon and bullets were not high quality and were breaking apart," one of the legislators, state Sen. Lauren Book, D-Plantation, told the Herald.

Cruz went in with only 10-round magazines because larger clips would not fit in his duffel bag, Book said.³⁰

Nearly any shooter can with a few minutes practice do magazine swaps in less than a second. Limiting magazines to a 10-round capacity would be of very limited value for reducing mass murder. The only circumstances in which a 10-round limit might matter would be if a courageous bystander took advantage of the second or less required for a magazine swap. While such interventions have happened, the circumstances are a bit more complex than portrayed by advocates of LCM bans: "[murderer's name redacted] fired all 31 bullets in the magazine and was reloading when a woman in the crowd, already wounded, attempted to grab the gun from him. He finally changed the magazine and tried to fire, but the gun jammed. Meanwhile, two men from the crowd grabbed him and subdued him, officials said."³¹

Similarly, the Clackamas Mall shooting in December, 2012, ended with fewer dead than was likely the murderer's intentions because: "[The sheriff] said the death toll would have been

³⁰ Nicholas Nehamas and David Smiley, *Florida School Shooter's AR-15 May Have Jammed, Saving Lives, Report Says*, MIAMI HERALD, Feb. 27, 2018.

³¹ Sam Quinones and Michael Muskal, *Jared Loughner to be charged in Arizona shootings targeting Gabrielle Giffords*, Los Angeles Times, Jan. 9, 2011.

higher had the shooter's assault rifle not jammed and law enforcement not responded within minutes of the first shot.”³²

I would add from personal experience that many larger magazines, if loaded to full stated capacity, often jam on the first few rounds until the magazine spring has had a chance to “set” in the fully compressed state after a few months fully loaded. Experienced shooters know this. Noteworthy is that the Clackamas Mall shooter stole the AR-15 “the day before from someone he knew,”³³ and likely did not know this. Giffords’ shooter was using a 31-round magazine,³⁴ which is larger than the factory magazine, and others in the crowd may have survived because the next magazine he loaded jammed the gun. They at least suggest LCMs are exaggerated in their dangerousness.

3. Pistols in Colonial America

At p. 19: “Nobody bayoneted turkeys, and pistols were of limited utility for anyone outside of a small elite group of wealthy, powerful, and influential men who needed these weapons if they were forced to face an opponent on the field of honor in a duel, as the tragic fate of Alexander Hamilton so vividly illustrates.”

Bayonets are not a firearms technology, nor are they regularly included with a firearm for sale. I have certainly never seen one included with a gun, nor does this case involve bayonet regulation. (I cannot recall reading of any mass murders involving bayonets in recent years.)

Cornell’s assumption of who owned pistols and why reflects, I think, Cornell’s single source, a book about dueling by people in national politics. 47. How common were pistols before

³² John Bacon, *Oregon mall shooter, victims identified*, *USA Today*, Dec. 11, 2012.

³³ *Id.*

³⁴ Sam Quinones and Michael Muskal, *Jared Loughner to be charged in Arizona shootings targeting Gabrielle Giffords*, *Los Angeles Times*, Jan. 9, 2011.

the Revolution? The evidence from archaeological digs, probate inventories, advertising, and from surviving pistols demonstrates that Americans made handguns before the Revolution; that there was a civilian market for them in at least some cities; and that pistol ownership was unremarkable. An analysis of all Plymouth Colony probate inventories found that of 339 listed firearms, forty-four, or thirteen percent, were pistols, and 54.5 percent of lead projectiles recovered from Plymouth Colony digs were pistol bullets.³⁵

On August 22, 1775, the New-York Provincial Congress ordered the militia to arm themselves; Calvarymen were obligated to provide themselves with “a case of pistols, and a carabine.” Every man 16 to 50 was to “furnish himself” with either a long gun or “a case of pistols.”³⁶ (How many pistols were in one case? At least one.)

While Americans made pistols early in the eighteenth century, most colonists preferred to buy pistols imported from Britain, perhaps because of price or prestige. Only a few pre-Revolutionary War American-made pistols have survived.³⁷ Surviving pistols made for William Smith of Farmington, Connecticut by Medad Hills in 1771, were equipped with American-made barrels, and apparently English locks.³⁸

³⁵ Plymouth Archaeological Rediscovery Project, “Firearms in Plymouth Colony” (2002), Tables 1 and 4, available at <https://www.plymoutharch.com/wp-content/uploads/2014/11/62869457-Firearms-in-Plymouth.pdf>, last accessed March 1, 2023.

³⁶ Peter Force, ed., 3 American Archives, 4th ser., 665-6 (1840).

³⁷ Harold L. Peterson, ARMS AND ARMOR IN COLONIAL AMERICA: 1526-1783 213-14, 202, 205, 209 (1956); M.L. Brown, FIREARMS IN COLONIAL AMERICA: THE IMPACT ON HISTORY AND TECHNOLOGY 1492-1792 312 (1980); Frank Klay, THE SAMUEL E. DYKE COLLECTION OF KENTUCKY PISTOLS 4-15 (1972); Felicia Johnson Deyrup, ARMS MAKERS OF THE CONNECTICUT VALLEY: A REGIONAL STUDY OF THE ECONOMIC DEVELOPMENT OF THE SMALL ARMS INDUSTRY, 1798-1870 34 (1948).

³⁸ George A. Stickels, *The William Smith Pistols Made by Medad Hills*, THE GUN REPORT 10-12 (September, 1979).

Advertising and news reports show that merchants offered pistols for sale in Colonial America. Such ads appear in the *Boston Gazette* as early as 1720. Sampling ads from the 1741-1742 period reveals at least two different merchants offering pistols for sale.³⁹

A gang of robbers, having terrorized New York City, moved on to Philadelphia in 1749. A newspaper account of their crimes reported that, “two Men, unknown, were lately at Mr. Rush's, a Gun smith, enquiring for six Pair of Pocket Pistols, to make up twelve Pair, having as they said, got the six Pair at some other Place.”⁴⁰ In 1772 and 1773, Heinrich Diebenberger advertised in Pennsylvania newspapers that he sold pistols,⁴¹ as did Henry Deabarear, who sold “pistols for holsters and the pocket....” Philadelphia merchants advertised pistols for sale repeatedly from 1744 onward.⁴² A 1745 ad in the PENNSYLVANIA GAZETTE, offered “ship muskets, *pistols*, cut lashes and poleaxes, gunpowder, lead, shot and bullets, English and French gun flints.”⁴³ [emphasis added]

Pistols appear in journals and newspaper articles throughout the colonial period—and while the crimes committed with them are sometimes shocking, the *presence* of pistols is never remarkable. Governor John Winthrop made several references to pistols in New England in the nineteen years that his journal covers. One was a 1641 theological dispute at Pascataquack (now Dover, New Hampshire) that led the factions to arm themselves and march, at least one member

³⁹ BOSTON GAZETTE issues with one or more ads offering pistols: May 30, 1720, November 17, 1741, December 8, 1741, February 2, 1742, May 11, 1742, May 18, 1742, May 25, 1742, July 13, 1742, August 10, 1742, August 24, 1742, August 31, 1742, [September 13?], 1742.

⁴⁰ PENNSYLVANIA GAZETTE, August 31, 1749.

⁴¹ September 4, 1772 and September 14, 1773, WOCHTENLICHTER PENNSYLVANISCHE STAATSBOTE, translated and quoted in James Whisker, THE GUNSMITH'S TRADE 159-160 (Lewiston, N.Y.: Edwin Mellen Press, 1992).

⁴² *Pennsylvania Gazette*, November 1, 1744; September 26, 1745; October 3, 1745; October 17, 1745; February 11, 1746; July 17, 1746; July 30, 1747; May 12, 1748; September 15, 1748; October 25, 1750; November 27, 1755; August 2, 1759; February 11, 1762; April 14, 1763; May 19, 1763; April 12, 1764; April 19, 1764; August 16, 1770; May 28, 1772; February 17, 1773; September 15, 1773.

⁴³ *Just imported by Hamilton, Wallace and Company, in the Ship*, PENNSYLVANIA GAZETTE, Sep. 26, 1745, Oct. 3, 1745.

identified as armed with a pistol. There were murders with pistols at Stamford, Connecticut and at Penobscott in 1644, and an attempted murder with a pistol at Cape Sable in 1646.⁴⁴ Pistols appear in other places in Winthrop's Journal.⁴⁵ Winthrop never expressed any surprise over the presence of pistols.

An accident in New York City in 1745: "a young Gentleman having been on board the Clinton Privateer, then going out, had a Pair of *Pistols* given him; which on his coming on Shore he carried into a Publick House, among some of his Acquaintance, where one of them was found to be loaded; upon which several Attempts were made to discharge it; but it missing Fire, he sat down in order to amend the Flint; in doing of which, the *Pistol* unhappily went off, and shot Mr. Thomas Cox, Butcher, through the Head..."⁴⁶ [emphasis in original]

Many eighteenth century accounts also mention pistols. Eliza Lucas Pinckney described the suicide of Anne LeBrasseur with a pistol as "melancholy and shocking," but newspaper accounts suggest that what was shocking was not the weapon, but that she was "a Disciple of Mr. Whitefield's" (the noted evangelist).⁴⁷ In 1749, the PENNSYLVANIA GAZETTE reported that, "Sunday night last, about eight a Clock, Richard Green, coming to Town from Kensington, was stopped on the Road, and his Money demanded, by two Men with Pistols...."⁴⁸ There are other examples available in the PENNSYLVANIA GAZETTE of the criminal misuse of and accidental deaths from pistols; they are never described as surprising.⁴⁹ Pistols appear among the South Carolina

⁴⁴ John Winthrop, 2 WINTHROP'S JOURNAL: "HISTORY OF NEW ENGLAND", 27, 153, 180, 275 (1908).

⁴⁵ *Id.*, at 95, 151,

⁴⁶ NEW YORK, October 28. *Monday Evening last a very melancholy*, PENNSYLVANIA GAZETTE, OCT. 31, 1745.

⁴⁷ Eliza Lucas Pinckney, Elise Pinckney, ed., THE LETTERBOOK OF ELIZA LUCAS PINCKNEY 42, 42 n. 55 (1997).

⁴⁸ *By the last Post from New York...*, PENNSYLVANIA GAZETTE, Aug. 31, 1749.

⁴⁹ *Monday Evening last a very melancholy...*, PENNSYLVANIA GAZETTE, Oct. 31, 1745; Last Friday one Hunt, a lime seller in this..., PENNSYLVANIA GAZETTE, Apr. 20, 1749.

Regulators and the criminals to whom they administered frontier justice.⁵⁰ Nor was there any surprise when pistols appear in the hands of the law-abiding, such as a description of Rev. Whitfield preaching in Massachusetts, “he was attended by many Friends with Muskets and Pistols on Account of the Indians....”⁵¹

Pistols appear in news reports: This came from New York in 1775, describing events before March 23 (so before the Revolutionary War started):

The sheriff came to the courthouse, and demanded entrance, which was refused him; and whilst struggling to enter the door, he received a blow upon his head, which leveled him with the ground: Having recovered a little, he arose and discharged a *pistol* among the opposers, and commanded the Court party to fire also; when, as Mr. Langdon supposes, about five of them fired. Mr. French, one of the opposers, was killed by a ball's being lodged in his head, and two more of the same party were also wounded. The sheriff and the Court party then entered the courthouse. The populace without discharged a gun and two *pistols*.⁵² [emphasis added]

Many news accounts report pistols being used by people far removed from “wealthy, powerful, and influential.”⁵³

A London gun-maker complained in the SOUTH CAROLINA GAZETTE that “a Person in the Country in putting my Name and *London* on some parcels of Guns and Pistols” apparently not proofed (as English law required) thus creating a risk to his reputation.⁵⁴ A 1766 ad in the SUPPLEMENT TO THE SOUTH CAROLINA GAZETTE; AND COUNTRY JOURNAL offered “brass barrel pistols.”⁵⁵

⁵⁰ Richard Maxwell Brown, THE SOUTH CAROLINA REGULATORS 35, 40, 54 (1963).

⁵¹ *Last Monday Capt. Tyng in the Massachusetts...*, PENNSYLVANIA GAZETTE, Aug. 15, 1745.

⁵² *MR. Mark Langdon, from Westminster, in the...*, VIRGINIA GAZETTE, Apr. 22, 1775.

⁵³ BY THE LAST POST FROM NEW YORK..., PENNSYLVANIA GAZETTE, Aug. 31, 1749.

⁵⁴ *To the Publick*, SOUTH CAROLINA GAZETTE, DEC. 26, 1743.

⁵⁵ *GUERIN & WILLIAMSON, Have just imported in the London*, SUPPLEMENT TO THE SOUTH CAROLINA GAZETTE; AND COUNTRY JOURNAL, Jun. 24, 1766, Jul. 1, 1766, Jul. 8, 1766

Enough pistols were present in private hands in Pennsylvania in 1774 for the legislature to include handguns in a law regulating New Year's Day festivities. This statute made it illegal for "any person or persons shall, on any thirty-first day of December, or first or second day of January, in every year, wantonly, and without reasonable occasion, discharge and fire off any handgun, pistol, or other firearms, or shall cast, throw or fire any squibs, rockets or other fireworks, within the inhabited parts of this province...."⁵⁶



PAUL REVERE'S VERY COMPACT POCKET PISTOL

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My search through newspapers from the 1730s through 1760s at Accessible Archives for "pistol" showed 2,962 matches.⁵⁸ Some of these are militia use references, some are references to a coin of that time, and some to a type of cloth called pistol. A few are references to foreign news events; some news accounts appear in multiple newspapers, still it is pretty apparent that Cornell's

⁵⁶ *An ACT to suppress the disorderly practice of FIRING GUNS, &c.*, PENNSYLVANIA GAZETTE, Dec. 28, 1774.

⁵⁷ Photograph by Clayton E. Cramer at the Massachusetts Historical Society.

⁵⁸ Accessible Archives is a proprietary data base. I searched for "pistol" in all newspapers for the 1730s through 1760s.

claim about the scarcity of pistols outside of those being used by the elite for dueling is utterly wrong and shows a limited knowledge of the period for which he has “expert” opinions.

4. Black Powder

At p. 18:

Limits in Founding-era firearms technology also militated against the use of guns as effective tools of interpersonal violence in this period. Eighteenth-century muzzle-loading weapons, especially muskets, took too long to load and were therefore seldom used to commit crimes. Nor was keeping guns loaded a viable option because the black powder used in these weapons was not only corrosive, but it attracted moisture like a sponge.... The preference for storing them unloaded also meant they posed fewer dangers to children from accidental discharge.

This is a perfectly logical statement, but the documents left by colonial Americans show that they did not follow it very consistently. As mentioned above, people unloaded firearms in public places with tragic results. Massachusetts Governor Winthrop’s journal reports several accidental deaths or injuries caused by colonists failing to follow this very logical action:

At a training at Watertown, a man of John Oldham's, having a musket, which had been long charged with pistol bullets, not knowing of it, gave fire, and shot three men, two into their bodies, and one into his hands; but it was so far off, as the shot entered the skin and stayed there, and they all recovered.⁵⁹

And:

Three men coming in a shallop from Braintree, the wind taking them short at Castle Island, one of them stepping forward to hand the sail, caused a fowling piece with a French lock, which lay in the boat, to go off. The whole charge went through the thigh of one man within one inch of his belly, yet missed the bone, then the shot (being goose shot) scattered a little and struck the second man under his right side upon his breast, so as above 40 shot entered his body, many into the capacity of his breast.⁶⁰

⁵⁹ John Winthrop, James Kendall Hosmer, ed., 1 *Winthrop's Journal: "History of New England" 1630-1649* (1908), 83.

⁶⁰ *Id.* 2:55.

And with reference to Cornell's claim at p. 18: "The preference for storing them unloaded also meant they posed fewer dangers to children from accidental discharge":

It is observable that this man had gathered some providences about such as were against them, as that Mr. Winslow's horse died, as he came riding to Boston; that *his brother's son (a child of eight years old) had killed his own sister (being ten years of age) with his father's piece*, etc., and his great trouble was, least this providence which now befell him, should be imputed to their cause.⁶¹ [emphasis added]

And:

One Richard Sylvester, having three small children, he and his wife going to the assembly, upon the Lord's day, left their children at home. The eldest was without doors looking to some cattle ; the middle-most, being a son about five years old, seeing his father's fowling piece, (being a very great one,) stand in the chimney, took it and laid it upon a stool, as he had seen his father do, and pulled up the cock, (the spring being weak,) and put down the hammer, then went to the other end and blowed in the mouth of the piece, as he had seen his father also do, and with that stirring the piece, being charged, it went off, and shot the child into the mouth and through his head.⁶²

These four incidents of firearms kept loaded when not in active use resulting in serious misadventure are in *one* book. How many of these loaded firearms sat quietly in their place, never accidentally discharging? How many incidents are in books that I have not read? Perhaps if Cornell was well-read in colonial documents, he would know enough to know about colonial practices to be an expert. The relevance of this claim to the proposed law is unclear. Did Cornell just copy and paste this section from a declaration where this was relevant?

Finally, there is one more piece of evidence that Americans kept firearms loaded when not ready for use. In 1783, Massachusetts passed a statute that shows firearms were kept loaded regularly enough to justify a law regulating the practice.

⁶¹ *Id.*, 2:317.

⁶² *Id.*, 2:72.

The preamble “WHEREAS the depositing of loaded arms in the houses of the town of Boston, is dangerous to the lives of those who are disposed to exert themselves when a fire happens to break out in the said town” establishes that it was a fire safety measure.

Sect. 2. And be it further enacted by the authority aforesaid, That all canon, swivels, mortars, howitzers, cohorns, fire-arms, grenades, and iron shells of any kind, that shall be found in any dwelling-house, out-house, stable, barn, store, ware-house, shop, or other building, charged with, or having any dwelling in them any gun-powder, shall be liable to be seized by either of the Firewards of the said town...

You were free to keep small arms, cannon, small artillery, bombs, and grenades at home, as long as they were unloaded. Why was there a need for such a law unless firearms (and artillery) were at least occasionally left loaded? Would we pass a law today ordering that you not leave children unsupervised at a pool if no one did this?

Cornell knows about this ordinance; he first brought it to my attention by email some years back.

D. Firearms Regulation in Antebellum America

At p. 32, Cornell makes a misleading reference to *Brown v. Maryland*, (1827): The regulation of firearms and ammunition was singled out as the quintessential example of state police power.” The decision involved not gunpowder or even police power, but a state requirement

[T]hat all importers of foreign articles or commodities, of dry goods, wares, or merchandise, by bale or package, or of wine, rum, brandy, whiskey and other distilled spirituous liquors, &c. and other persons selling the same by wholesale, bale or package, hogshead, barrel, or tierce, shall, before they are authorized to sell, take out a license, as by the original act is directed, for which they shall pay fifty dollars...⁶³

⁶³ *Brown v. Maryland*, 25 US 419, 436 (1827).

The *Brown* decision was based on the Dormant Commerce Clause. The reference to gunpowder was in response to a hypothetical by Maryland: “He may sell by retail, at auction, or as an itinerant pedlar. He may introduce articles, as gunpowder, which endanger a city, into the midst of its population; he may introduce articles which endanger the public health, and the power of self-preservation is denied.” Chief Justice Marshall’s decision quoted by Cornell was: “The power to direct the removal of gunpowder is a branch of the police power, which unquestionably remains, and ought to remain, with the States.”⁶⁴ It was “a branch of the police power,” not “the quintessential example.” The hazard of storing gunpowder in a crowded city is clear; it may explode without human agency and represents an enormous risk to persons perhaps far removed from the gunpowder. If Cornell wants to liken the risk of assault weapon or LCM ownership to gunpowder storage, he needs a much clearer explanation of that parallel.

At 35, Cornell also quotes from the *License Cases* (1847) to justify what seems to be a nearly unlimited police power of the state:

It is not susceptible of an exact limitation, but must be exercised under the changing exigencies of society. In the progress of population, of wealth, and of civilization, new and vicious indulgences spring up, which require restraints that can only be imposed by new legislative power. When this power shall be exerted, how far it shall be carried, and where it shall cease, must mainly depend upon the evil to be remedied.

This understanding of the nearly unlimited authority of the state by invoking the magic incantation “new and vicious indulgences” makes the entire Bill of Rights null and void. If a state decided that sodomy and divorce were “new and vicious indulgences,” the state would enjoy unlimited power to prohibit these actions.

⁶⁴ *Id.* at 443.

Cornell at p. 35 quotes selectively from *State v. Reid* (Ala. 1840) to claim that “‘The terms in which this provision is phrased,’ the court noted, ‘leave with the Legislature the authority to adopt such regulations of police, as may be dictated by the safety of the people and the advancement of public morals.’”

The following paragraph of *Reid* admits

We do not desire to be understood as maintaining, that in regulating the manner of bearing arms, the authority of the Legislature has no other limit than its own discretion. A statute which, *under the presence of regulating, amounts to a destruction of the right, or which requires arms to be so borne as to render them wholly useless for the purpose of defense, would be clearly unconstitutional.*⁶⁵
[emphasis added]

I do not see how Cornell missed this utter rejection of his claim, two sentences later.

At p. 35 n. 121: “Apart from rare outlier decisions, such as *Bliss v. Commonwealth*, 12 Ky. (2 Litt.) 90, 92 (1822) courts employed a police power framework to adjudicate claims about the scope of state power to regulate arms. For a useful discussion of *Bliss* in terms of the police power, see FREUND, *supra* note 95, at 91.” Cornell might have benefitted from reading the primary sources, as historians try to do, instead of relying on a clearly flawed secondary source. Of course, this would require Cornell becoming familiar with the subject than he has along with *Bliss*, many other decisions decided the “scope of state power to regulate arms,” often explicitly recognizing a right to open carry based on their state constitutions, and in some cases the Second Amendment, not the rarely mentioned “police power.”⁶⁶

⁶⁵ *State v. Reid*, 1 Ala. 612, 616, 617, 35 Am. Dec. 44 (1840).

⁶⁶ Just a few examples: *Bliss v. Commonwealth*, 2 Littell 90, 13 Am. Dec. 251 (Ky. 1822) (struck down a ban on carrying concealed weapons based on state constitution); *Simpson v. State*, 5 Yerg. 356 (Tenn. 1833) (struck down a conviction for “with force and arms,... being arrayed in a warlike manner, then and there in a certain public street and highway situate, unlawfully, and to the great terror and disturbance of divers good citizens of the said state, then and there being, an affray did make,” because “the freemen of this state have a right to keep and to bear arms for their common defense.” Tenn. Const. Article 11, sec. 26); *Aymette v. State*, 2 Hump. (21 Tenn.) 154, 155, 156, 158 (1840) (upheld a ban on concealed carry of a Bowie knife because the Tennessee Constitution only protected weapons of war: “The free white men may keep arms to protect the public liberty, to keep in awe those who are in power, and to maintain the supremacy of the laws and the constitution.”); *State v. Reid*, 1 Ala. 612 (1840) (“A statute which, under

E. Post-1868 Evidence

Cornell insists at pp. 38-39: “As long as state and local laws were racially neutral and favored no person over any other, the people themselves, acting through their representatives, were free to enact reasonable measures necessary to promote public safety and further the common good.” Had Cornell read *McDonald v. Chicago* (2010) he would know that it was precisely the racial discrimination of the Black Codes that caused the 14th Amendment to limit state authority in this area.⁶⁷ This was the basis by which *McDonald* incorporated the Second Amendment against the states.⁶⁸

F. Summary

Cornell misrepresents the broadness of the carryover of English law to the American colonies. He lists three states that apparently must stand in for all thirteen former colonies and even these two of these three are clear that later statutes (presumably including post-Revolutionary state constitutions) take precedence. In Massachusetts, only a few aspects of English law carried over to the new state.

He misrepresents Blackstone about the importance of conserving the peace; argues for a unlimited democracy that the Bill of Rights exists to prevent; He misrepresents how the militia laws and the Test Acts worked.

the presence of regulating, amounts to a destruction of the right, or which requires arms to be so borne as to render them wholly useless for the purpose of defense, would be clearly unconstitutional.”); *Owen v. State*, 31 Ala. 387 (1858) (upheld a ban on concealed carry, but “That section was not designed to destroy the right, guaranteed by the constitution to every citizen, “to bear arms in defense of himself and the State”; nor to require them to be so borne, as to render them useless for the purpose of defense.”); 3 Iredell 418, 423 (N.C. 1843) (Upholding a conviction of a bully running around armed and threatening people: “For any lawful purpose--either of business or amusement--the citizen is at perfect liberty to carry his gun. It is the wicked purpose, and the mischievous result, which essentially constitute the crime. He shall not carry about this or any other weapon of death to terrify and alarm, and in such manner as naturally will terrify and alarm a peaceful people.”)

⁶⁷ *McDonald v. City of Chicago*, 561 U.S. 742, 779 (2010)

⁶⁸ *Id.* at 790.

He misrepresents *State v. Reid* (Ala. 1840); misuses Dormant Commerce Clause cases to argue for an unlimited power of the states to regulate everything with no power of the Bill of Rights to counter such abuses of majority power.

Cornell attempts to use post-1868 laws contrary to *Bruen*'s clear instructions.

III. Louis Klarevas

This Rebuttal to Louis Klarevas demonstrates that his claims about mass murder rate change are very questionable.

A. Intentional Criminal Acts

At ¶11: “It is my professional opinion, based upon my extensive review and analysis of the data, that (1) in terms of individual acts of intentional criminal violence, mass shootings presently pose the deadliest threat to the safety of American society in the post-9/11 era, and the problem is growing nationwide.” This is one of those claims that on its face is so obviously wrong that he must be leaving something out of his claim. There have been 543 mass murders since 2006 (of which some do not involve firearms) with 2,829 dead.⁶⁹ (I picked 2006 because there was an available dataset.) Yet the FBI reports there were 13,477 homicide incidents in 2021, 17,815 murders in 2020, 14,548 in 2019, with the lowest number since 2011 being 12,312 in 2014.⁷⁰ There were 170,206 total murders 2011 through 2021. Somehow mass murders from all years 2006 through 2021 are 1.7% of the *total* murders in the years 2011 through 2021, and mass murders are the biggest threat of “individual acts of intentional criminal violence”?

⁶⁹ *Mass killing database: Revealing trends, details and anguish of every US event since 2006*, *USA Today*, Mar. 29, 2023. See *Number of mass killing victims killed per year*. In 2022, there were 24 non-gun mass murder victims; in 2021, 18; in 2020, 18.

⁷⁰ FBI, *Expanded Homicide Offense Counts in the United States*, <https://cde.ucr.cjis.gov/LATEST/webapp/#/pages/explorer/crime/shr>, last accessed April 1, 2023. FBI, Crime Data Explorer for 2021 Homicide, <https://cde.ucr.cjis.gov/LATEST/webapp/#/pages/explorer/crime/crime-trend>, last accessed July 15, 2023.

B. Errors of History

At ¶11: “mass shootings resulting in double-digit fatalities are relatively modern phenomena in American history, largely related to the use of assault weapons and LCMs”: Mass murders with double-digit fatalities without LCMs are surprisingly common in American history⁷¹ and not a recent phenomenon. Here the “expert” shows the questionable nature of his database.

The mass murderer at the University of Texas in 1966 murdered fourteen people.⁷² He was a skilled marksman using a very traditional hunting rifle: a Remington 700. He also had two more rifles, a shotgun, and three pistols with him.⁷³ The Navy Yard mass murderer used a pump-action Remington 870 shotgun to murder 12.⁷⁴

C. Those Other Mass Murders Do Not Count

At ¶11, “high-fatality mass shootings involving assault weapons and/or LCMs, on average, have resulted in a substantially larger loss of life than similar incidents that did not involve assault weapons and/or LCMs...” By similar incidents, I presume he means firearms mass murders *only*.

Of course, mass murder does not require a firearm of any sort. Non-firearm double-digit mass murders are by no means particularly modern aspects of American history. On Christmas Eve, 1913, a man shouted, “Fire! Fire! Everybody rush!” in the Italian Hall where striking miners and their families were having a Christmas party. (There was no fire.) As the crowd attempted to

⁷¹ 150 dead in the 1873 Colfax, La., Massacre, 140 dead in the Mountain Meadows, Utah Massacre, 74 dead in the Calumet, Mich. Trampling incident; at least 100 killed in the 1921 Tulsa riot; 95 murdered in an arson of a school in 1958 Chicago,

⁷² Charles Bowden, *The Men Who Stopped a Mass Murderer*, Esquire, Aug. 26, 2021, <https://www.esquire.com/news-politics/a36890935/charles-whitman-mass-shooting-university-of-texas/>, last accessed February 6, 2023.

⁷³ Craig Hlavaty, *Rifle Reported To Be Used In Charles Whitman Killing Spree Up For Sale*, Houston Chronicle, Sep. 24, 2014, <https://www.chron.com/news/houston-texas/texas/article/Rifle-reported-to-be-used-in-Charles-Whitman-5777479.php>, last accessed February 6, 2023.

⁷⁴ Greg Botelho and Joe Sterling, FBI: Navy Yard shooter ‘delusional,’ said ‘low frequency attacks’ drove him to kill, CNN, Sep. 26, 2013.

exit the hall through an inadequate exit, seventy-four people (mostly children) were trampled to death.⁷⁵ One account ascribed the false claim to “a drunken” man,⁷⁶ but considering the murder of strikebreakers in Calumet a few weeks before in the middle of a fierce labor dispute,⁷⁷ this seems unlikely as the cause.⁷⁸ 11. June 24, 1973: The murderer took revenge for being expelled from the UpStairs Lounge, a gay bar. He walked down the street and bought a bottle of cigarette lighter fluid, killing 33 people.⁷⁹

The five largest mass murders in U.S. history have been with airplanes,⁸⁰ explosives,⁸¹ and flammable liquids.⁸² Klarevas cannot discount these other mass murders as terrorist acts as he includes terrorist firearms mass murders at Fort Hood, TX and San Bernardino, CA in his Table 6 of mass shootings.

This unwillingness to include non-firearms mass murders is questionable. Other experts on mass murder have responded to my list of early American mass murders by discounting the mass murders of children:

The husband who attacked his family with an axe in Clarksburg, Virginia, in 1805 killed only one adult, his wife. His other eight victims were his children. And the husband who attacked his family with a knife in Hallowell, Maine, in 1806 killed only one adult, his wife. His other 7 victims were his children. Cramer’s evidence does not show that edged and blunt weapons are effective tools for committing mass murder. It shows instead that infants and children are not capable of defending themselves against attacks by adults. That conclusion is consistent with the extensive literature in contemporary criminology that

⁷⁵ *Ore Miner Charged Eight-Seven Cents for Month’s Labor*, OMAHA DAILY BEE, Feb. 12, 1914, 1.

⁷⁶ *Day of Joy is One of Sorrow*, [Valley City, N.D.] *Weekly Times-Record*, Jan. 1, 1914, 6.

⁷⁷ *Strike Breakers Taken to Mines at Point of Pistols*, *Omaha Daily Bee*, Jan. 11, 1914, 1 (based on U.S. Dept. of Labor report).

⁷⁸ *Ore Miner Charged Eight-Seven Cents for Month’s Labor*, OMAHA DAILY BEE, Feb. 12, 1914, 1.

⁷⁹ Elisabeth Dias with Jim Down, *The Horror Upstairs*, TIME, Jul. 1, 2013.

⁸⁰ David B. Caruso, *Official 9/11 death toll grows by 1 nearly a decade later*, HOUSTON CHRONICLE, Jun. 17, 2011. (2,753 dead at World Trade Center); *Accused 9/11 plotter Khalid Sheikh Mohammed faces New York trial*, CNN, November 13, 2009. (146 at Pentagon).

⁸¹ Elizabeth Chuck, *Twenty Years Later: The People in the Oklahoma City Bombing*, NBC NEWS, Apr. 18, 2015.

⁸² Richard W. Bukowski, P.E. and Robert C. Spetzler, *Analysis Of The Happyland Social Club Fire With Hazard I*, 4(4) JOURNAL OF FIRE PROTECTION ENGINEERING, 117-131, (1992), (87 dead); *Dupont Plaza Hotel Fire Puerto Rico 1986*, NIST ENGINEERING LABORATORY, <https://www.nist.gov/el/dupont-plaza-hotel-fire-puerto-rico-1986>, last accessed November 17, 2017. (98 dead).

shows that young children are killed in the overwhelming majority of cases with weapons other than firearms, because adults can kill children so easily with physical force or everyday household objects.⁸³

I guess we can ignore mass murders of children in justifying LCM bans.

1. Effectiveness of Assault Weapon Bans

At ¶11: “states that restrict both assault weapons and LCMs experience fewer high-fatality mass shooting incidents and fatalities, per capita, than states that do not restrict assault weapons and LCMs”: He points to his own work for this claim. I point to the National Institute of Justice report, commissioned by Congress as part of the 1994 federal assault weapons ban:

A central argument for special regulation of assault weapons and large capacity magazines is that they facilitate the rapid firing of high numbers of shots, which allows offenders to inflict more wounds on more persons in a short period of time, thereby increasing the expected number of injuries and deaths per criminal use. The study examined trends in the following consequences of gun use: gun murders, victims per gun homicide incident, wounds per gunshot victim, and, to a lesser extent, gun murders of police.

There were several reasons to expect, at best, a modest ban effect on criminal gun injuries and deaths. First, studies before the ban generally found that between less than 1 and 8 percent of gun crimes involved assault weapons, depending on the specific definition and data source used. Although limited evidence suggests that semiautomatics equipped with large capacity magazines are used in 20 to 25 percent of these gun crimes, it is not clear how often large capacity magazines actually turn a gun attack into a gun murder. Second, offenders could replace the banned guns with legal substitutes or other unbanned semiautomatic weapons to commit their crimes. ...

However, other analyses using a variety of national and local data sources found no clear ban effects on certain types of murders that were thought to be more closely associated with the rapid-fire features of assault weapons and other semiautomatics equipped with large capacity magazines. The ban did not produce declines in the average number of victims per incident of gun murder or gun murder victims with multiple wounds.⁸⁴

A follow-up study near the end of the ban produced interesting results concerning LCMs:

⁸³ Randolph Roth, Supplemental Sur-Rebuttal Expert Report And Declaration Of Randolph Roth, *Rupp v. Bonta* (C.D.Cal. 2017).

⁸⁴ Jeffrey A. Roth and Christopher S. Koper, *Impacts of the 1994 Assault Weapons Ban: 1994-96*, NCJ 173405, (Washington: National Institute of Justice, 1999), 1, 7, 8.

Specific data on shots fired in gun attacks are quite fragmentary and often inferred indirectly, but they suggest that relatively few attacks involve more than 10 shots fired. Based on national data compiled by the FBI, for example, there were only about 19 gun murder incidents a year involving four or more victims from 1976 through 1995.... The few available studies on shots fired show that assailants fire less than four shots on average (see sources in Table 9-1 and Goehl, 1993), a number well within the 10-round magazine limit imposed by the AW-LCM ban, but these studies have not usually presented the full distribution of shots fired for all cases, so it is usually unclear how many cases, if any, involved more than 10 shots.⁸⁵

As to the data from one city in particular, Jersey City, the authors were careful to observe:

Caution is warranted in generalizing from these results because they are based on a very small number of incidents (6) from one sample in one city. Further, it is not known if the offenders in these cases had LCMs (gun model and magazine information was very limited); they may have emptied small magazines, reloaded, and continued firing. But subject to these caveats, the findings suggest that the ability to deliver more than 10 shots without reloading may be instrumental in a small but non-trivial percentage of gunshot victimizations. On the other hand, the Jersey City study also implies that eliminating AWs and LCMs might only reduce gunshot victimizations by up to 5%. And even this estimate is probably overly optimistic because the LCM ban cannot be expected to prevent all incidents with more than 10 shots. Consequently, any effects from the ban (should it be extended) are likely to be smaller and perhaps quite difficult to detect with standard statistical methods (see Koper and Roth, 2001a), especially in the near future, if recent patterns of LCM use continue.⁸⁶ [emphasis added]

Curiously, when attempting to evaluate effects of lethal and injurious gun violence, the authors pointed to the decline in murder rates during the ban period, but:

Attributing the decline in gun murders and shootings to the AW-LCM ban is problematic, however, considering that crimes with LCMs appear to have been steady or rising since the ban. For this reason, we do not undertake a rigorous investigation of the ban's effects on gun violence.... But a more casual assessment shows that gun crimes since the ban have been no less likely to cause death or injury than those before the ban, contrary to what we might expect if crimes with AWs and LCMs had both declined. For instance, the percentage of

Christopher S. Koper, *Updated Assessment of the Federal Assault Weapons Ban: Impacts on Gun Markets and Gun Violence, 1994-2003* 90 (Jul. 2004).

⁸⁶ *Id.* at 91.

violent gun crimes resulting in death has been very stable since 1990 according to national statistics on crimes reported to police.⁸⁷ [emphasis added]

If a nationwide ban on manufacture and sale of LCMs seems to have no noticeable effect, what would the actions of one state do?

2. Cherry-Picking Data

For several years, I have been gathering American mass murders from the 17th century forward. I am currently working my way through the 1960s; I have 792 mass murder incidents with 5,325 dead from all weapon types. I have a very incomplete collection past 1960, but complete enough to see that Klarevas cherry-picks his data.

Klarevas' Table 1 (page 6) lists "The Deadliest Acts of Intentional Criminal Violence in the U.S. since 9/11." This seems to be an arbitrarily picked date: it excludes the Happyland Social Club arson mass murder of 87 (1990); the Oklahoma City explosives mass murder of 168 (1995); the Dupont Plaza Hotel arson mass murder of 98 (1986); and the elephant in the room, the largest mass murder in U.S. history: on 9/11 (2001). All of these far exceed the fatality count of the most deadly event in his Table 1. His Exhibit C, "High-Fatality Mass Shootings in the United States, 1991-2022," by setting 1991 as his starting date again excludes several mass shootings that would otherwise make the list and would alter his Figure 2 (page 7), "Annual Trends in High-Fatality Mass Shooting Fatalities, 1991-2022." Firearm mass murders that he leaves out because they are before 1991 raise serious questions about his claim "the problem of high-fatality mass shooting violence is on the rise," is less persuasive, at least to anyone with a knowledge of America's long history of mass murder before 1991.

⁸⁷ *Id.* at 92.

The Texas Tower mass murder of 1966; 17 people died.⁸⁸ The murderer was a skilled marksman using a very traditional hunting rifle: a Remington 700. He also had two more rifles, a shotgun, and three pistols with him.⁸⁹

Jul. 18, 1990: A convicted felon who was perhaps upset about repossession of his car six months earlier, went into a General Motors Acceptance Corp. offices and murdered nine.⁹⁰

Sep. 15, 1989: An employee of Standard Gravure printing plant had a grudge against his employer, in his opinion, because of his mental illness. (He had voluntarily sought mental health treatment in the past.) He murdered seven people and wounded many others. He left in his home a copy of *Time* open to an article about the Stockton mass murderer.⁹¹

Feb. 16, 1988: A murderer upset that his stalking had been spurned shot his way into her place of employment, in Santa Clara, Cal. killing seven and wounding four with a shotgun.⁹²

Apr. 23, 1987: A retired librarian described by neighbors as having “a bad temper and a sick wife... and maybe a little crazy” murdered six and wounded 14. He used a shotgun, pistol, and rifle. He had a history of shooting at neighborhood kids who walked across his lawn.⁹³ A bystander distracted the murderer by returning fire, “which allowed people to escape” from a grocery store where the shooting was taking place.⁹⁴

⁸⁸ Gary M. Laverne, *University of Texas Tower Shooting (1966)*, Texas State Historical Association,

⁸⁹ Craig Hlavaty, *Rifle Reported To Be Used In Charles Whitman Killing Spree Up For Sale*, *Houston Chronicle*, Sep. 24, 2014, <https://www.chron.com/news/houston-texas/texas/article/Rifle-reported-to-be-used-in-Charles-Whitman-5777479.php>, last accessed February 6, 2023.

⁹⁰ Ronald Smothers, “Florida Gunman Kills 8 And Wounds 6 in Office,” *New York Times*, Jun. 19, 1990; “10th Death in Office Shooting,” *New York Times*, Jun. 28, 1990.

⁹¹ Ronald Smothers, “Disturbed Past of Killer of 7 is Unraveled,” *New York Times*, Sep. 16, 1989, <https://www.nytimes.com/1989/09/16/us/disturbed-past-of-killer-of-7-is-unraveled.html>, last accessed November 24, 2018.

⁹² Dan Morain and Mark A. Stein, “Unwanted Suitor’s Fixation on Woman Led to Carnage,” *Los Angeles Times*, Feb. 18, 1988.

⁹³ Barry Bearak, “6 Dead and 14 Hurt in Rampage: Florida Shooting Suspect ‘Meanest Man on Block’,” *LOS ANGELES TIMES*, Apr. 25, 1987, http://articles.latimes.com/1987-04-25/news/mn-990_1_palm-bay-police, last accessed November 24, 2018.,”

⁹⁴ John A. Torres, “Palm Bay Killer Far From Execution 20 Years Later.” [Lakeland, Fla.] *Ledger*, Apr. 30, 2007, <https://www.theledger.com/news/20070430/palm-bay-killer-far-from-execution-20-years-later>, last accessed November 24, 2018.

There a number of other high-fatality firearm mass murders before 1991: 14 murdered in a post office in 1986⁹⁵; 20 murdered in a McDonald's in 1984⁹⁶; nine murdered in Manley Hot Springs, Alaska in 1984⁹⁷; eight murdered in Miami in 1982⁹⁸; nine murdered in Midland Co., Mich. In 1982⁹⁹; seven murdered at Cal State University, Fullerton in 1976¹⁰⁰; 11 murdered in Hamilton, Ohio in 1975¹⁰¹.

The number of high-fatality firearm mass murders *before* 1991 make his rising linear trend-line in Figure 2 very likely to change. In addition, Klarevas' Figure 1 makes no allowance for U.S. population growth from 1991 to 2022. The 1991 population was 251,000,000;¹⁰² in 2022, it was 332,403,650.¹⁰³ The U.S. had 32% more people in 2022 than in 1991. You can expect the number of incidents and dead to rise in proportion to the population. This is why criminologists express crime rates per 100,000 population. Failure to account for population growth and his misleading choice of start date utterly discredits Klarevas' Figures 1 and 2.

Klarevas' focus on mass *shootings* ignores the largest mass murders in American history, which did not use guns. The previously mentioned arson and explosives mass murders are in that category. Ignoring these alternative methods of "intentional criminal violence" in is just dishonest if you are concerned about reducing mass murder.

⁹⁵ "Massacre at a Post Office," *New York Times*, Aug. 24, 1986.,"

⁹⁶ "Coast Man Kills 20 in Rampage at a Restaurant," *New York Times*, Jul. 19, 1984; "Police Defended in Macdonald's Case," *New York Times*, Aug. 3, 1984.,"

⁹⁷ "Memories of Springtime Murders Chill Small Alaskan Town," *New York Times*, Nov. 11, 1984.

⁹⁸ George Volsky, "Gunman in Miami Kills 8 in Rampage," *New York Times*, Aug. 21, 1982.

⁹⁹ "Michigan Man is Guilty of Killing 7 in Family," *New York Times*, Oct. 9, 1982; Gus Burns, "Police say infamous Farwell killer, Robert Lee Haggart, strangled and raped Midland woman in 1977," *Saginaw News*, Jul. 24, 2009.

¹⁰⁰ Maria Bovsun, "Mass Murderer Who Killed 7 At Cal State Fullerton Begs to be Freed From Psychiatric Hospital," *New York Daily News*, Jun. 11, 2016.

¹⁰¹ Flowers and Flowers, *Murders in the United States*, 76.

¹⁰² U.S. Census, *National Intercensal Tables: 1990-2000*, 1991.

¹⁰³ U.S. Census, *U.S. Population Estimated at 332,403,650 on Jan. 1, 2022*.

At ¶13: “In addition to showing that the frequency and lethality of high-fatality mass shootings are on the rise nationally, the data point to another striking pattern: both assault weapons and LCMs are being used with increased frequency to perpetrate gun massacres.” He further claims in Figure 4 (page 9) that 85% of high-fatality mass shooting events in the last 16 years involved LCMs. And in Figure 5 (page 10) that 53% of high-fatality mass shooting deaths in the last 16 years involved assault weapons. These are pretty amazing (and wrong) claims.

The USA Today database published in 2018 found that only $\frac{3}{4}$ of mass murders used guns.¹⁰⁴ Of that $\frac{3}{4}$, some murders were a combination of weapons: shooting, stabbing, blunt force.¹⁰⁵

- 49.6% were semiautomatic handguns (some of which *could* have used LCMs);
- 22.4% were revolvers, so no LCMs possible, and not “assault weapons”;
- 0.9% were described as “automatic (assault) pistols” (automatic weapons are not subject to the New Jersey law);
- 8.6% were semiautomatic rifles (only some of which qualify as “assault weapons”; there are a lot of inexpensive .22 rimfire semiautomatic rifles in America);
- 9.5% were single-shot rifles (so no LCMs and not “assault weapons”);
- 0.4% were “automatic rifle” (not subject to the New Jersey law).
- 8.6% were shotguns. While there *are* magazine-fed shotguns that could be fitted with LCMs, the only shotguns identified by type that I have ever seen in news

Behind the Bloodshed: The Untold Story of America’s Mass Killings, USA Today, Apr. 16, 2015, <https://www.gannett-cdn.com/GDContent/mass-killings/index.html#title>, last accessed April 2, 2023.
Id., <https://www.gannett-cdn.com/GDContent/mass-killings/index.html#explore>, see Dec. 15. 2014 Souderton, Pa.

reports of mass murders are a pump-action Remington 870 shotgun to murder 12 at the Navy Yard in 2013.¹⁰⁶

Even ignoring the non-firearms mass murders, the firearms used 2006-2015 that could not have been “assault weapons” include the 22.4% of revolvers, 9.5% of single-shot rifles, and 8.6% of shotguns. At least 40.5% of 2006-2018 firearms mass murders could *not* have used an LCM.

The last 16 years before 2022 is the period 2006-2022. Even including use of LCMs in automatic weapons would require that to get to Klarevas’ 85% of high-fatality mass shooting events using LCMs would require that in the period 2017-2022 the previous 40.5% of non-LCM mass shooting victims fell to 15% of the total.

Klarevas’ Exhibit C lists the 2018 Parkland shooting as using an LCM. There seems to be some question about that:

Several state legislators who visited the school with crime-scene investigators said they learned from police that Cruz’s rifle was not top-of-the-line, perhaps explaining the malfunction.

The “weapon and bullets were not high quality and were breaking apart,” one of the legislators, state Sen. Lauren Book, D-Plantation, told the Herald.

Cruz went in with only 10-round magazines because larger clips would not fit in his duffel bag, Book said.¹⁰⁷

I confess that I was not even aware that there were 10-round AR-15 magazines available, until this question was first raised.

Greg Botelho and Joe Sterling, FBI: Navy Yard shooter ‘delusional,’ said ‘low frequency attacks’ drove him to kill, CNN, Sep. 26, 2013 <https://www.cnn.com/2013/09/25/us/washington-navy-yard-investigation/index.html>, last accessed February 3, 2023.

¹⁰⁷ Nicholas Nehamas and David Smiley, *Florida School Shooter’s AR-15 May Have Jammed, Saving Lives, Report Says*, MIAMI HERALD, Feb. 27, 2018.

D. Summary

The current effort to restrict semiautomatic rifles of an often military appearance and what prohibitionists call Large Capacity Magazines (LCMs) started in 1989 after a mentally ill drifter with a history of involuntary commitment and a spotty record of outpatient treatment, ended his suffering by committing mass murder and with an AK-47 pattern rifle. He received a Social Security disability check which enabled him to buy guns and ammunition while remaining homeless. As the California Dept. of Justice's official report observed:

In an ideal world, ample resources would have been available to detect his problems, identify them as potentially dangerous and likely to result in his life being uselessly wasted, and to provide for a type of intervention with a reasonable prospect of making a difference. However, in a world in which government spending has to recognize realistic limits set by the public, such resources will never be plentifully available.¹⁰⁸

Drawing chalk marks around bodies, postmortems and providing counselling for the survivors is cheaper? It was still many lives wasted by California's confused and irrational mental health policy that subsequently spread across the country in the 1970s.

A contributing factor to mass murders is media coverage:

Three shootings with multiple victims shook California over the last few days. The shootings Monday at two farms in Half Moon Bay, Calif., closely followed over the weekend at a dance hall in Monterey Park, Calif.

That's no surprise, say scientists who study mass shootings. Research shows that these incidents usually occur in clusters and tend to be contagious. Intensive media coverage seems to drive the contagion, the researchers say.

Back in 2014 and 2015, researchers at Arizona State University analyzed data on cases of mass violence. They included *USA Today's* data on mass killings (defined as four or more people killed using any means, including guns) from 2006 to 2013, data on school shootings between 1998 and 2013, and mass shootings (defined as incidents in which three people were shot, not necessarily

¹⁰⁸ Nelson Kamps, *A Report to Attorney-General John K. Van de Kamp on Patrick Edward Purdy and the Cleveland School Killings*, October, 1989, 19, <https://schoolshooters.info/sites/default/files/Purdy%20-%20official%20report.pdf>, last accessed November 26, 2022.

killed) between 2005 and 2013 collected by the Brady Campaign to Prevent Gun Violence.

The lead researcher, Sherry Towers, a faculty research associate at Arizona State University, had spent most of her career modeling the spread of infectious diseases — like Ebola, influenza and sexually transmitted diseases. She wanted to know whether cases of mass violence spread contagiously, like in a disease outbreak.

So, she plugged each data set into a mathematical model.

"What we found was that for the mass killings — so these are high-profile mass killings where there's at least four people killed — there was significant evidence of contagion," says Towers. "We also found significant evidence of contagion in the school shootings."

In other words, school shootings and other shootings with four or more deaths spread like a contagion — each shooting tends to spark more shootings....

Towers and her colleagues also found that what set apart shootings that were contagious was the amount of media coverage they received. "In the incidences where there were four or more people killed, and even school shootings, those tended to get national and even international media attention," says Towers.¹⁰⁹

Nonetheless, no one would seriously suggest controls on “assault media” because they can provoke copycat mass murders.

Untreated mental illness started this current campaign and many of the subsequent mass murders have had at their root mental illness which was unseen, ignored, or where the laws or policies made involuntary commitment impossible.¹¹⁰

The Secret Service published a report in 2018 analyzing mass murders with three or more dead and concluded.

Nearly two-thirds of the attackers (n = 18, 64%) experienced mental health symptoms prior to their attacks. The most common symptoms observed were related to psychosis (e.g., paranoia, hallucinations, or delusions) and suicidal thoughts.... Further, some

¹⁰⁹ Rhitu Chatterjee, *Mass Shootings Can Be Contagious, Research Shows*, NPR, Jan. 24, 2023.

¹¹⁰ See Clayton E. Cramer, *Mental Illness and the Second Amendment*, 46 CONN. L.R. 4:1301 (2014) for an examination of this problem and Clayton E. Cramer, *MY BROTHER RON: A PERSONAL AND SOCIAL HISTORY OF THE DEINSTITUTIONALIZATION OF THE MENTALLY ILL* (2012) for how we got here.

attackers (n = 7, 25%) had been hospitalized for treatment or prescribed psychiatric medications prior to their attacks.¹¹¹

This should be no surprise: if you are hallucinating that you are surrounded by flesh-eating zombie Congressmen (as with the shooter at the U.S. Capitol in 1999¹¹²), then mass murder makes perfect sense; indeed failing to do so would be a sign of insanity.

A 2000 *New York Times* examination of mass murderers concluded:

The Times' study found that many of the rampage killers... suffered from severe psychosis, were known by people in their circles as being noticeably ill and needing help, and received insufficient or inconsistent treatment from a mental health system that seemed incapable of helping these especially intractable patients.

Only a small percentage of mentally ill people are violent, and many advocates bristle at any link between mental illness and violence out of concern that it will further stigmatize an already mistreated population.

However, the Times investigation of this particular style of violence -- public rampage killings -- turned up an extremely high association between violence and mental illness. Forty-seven of the killers had a history of mental health problems before they killed; 20 had been hospitalized for psychiatric problems; 42 had been seen by mental health professionals.¹¹³

In this respect, mentally ill mass murderers are not terribly different from their more mundane individual murder counterparts: the mentally ill are overrepresented among murderers. It should not be surprising that severe mental illness and murder is strongly correlated, as are severe mental illness and other violent crimes across multiple nations and multiple decades. The severely mentally ill commit about 10% of all violent felonies.¹¹⁴ A 1999 study of U.S. prisoners found

¹¹¹ United States Secret Service, Mass Attacks in Public Spaces – 2017, Mar. 2018, available at https://mentalillnesspolicy.org/wp-content/uploads/secret_service_64_attacks_MI.pdf.

¹¹² Bill Miller, *Capitol Shooter's Mind-Set Detailed*, Washington Post, Apr. 23, 1999, available at <https://www.washingtonpost.com/wp-srv/national/longterm/shooting/stories/weston042399.htm>

¹¹³ Laurie Goodstein and William Glaberson, "The Well-Marked Roads to Homicidal Rage," *New York Times*, April 10, 2000.

¹¹⁴ Arthur Zitrin, Anne S. Hardesty, Eugene I. Burdock & Ann K. Drossman, Crime and Violence Among Mental Patients, 133 *Am. J. Psychiatry* 142-9 (1976) (deinstitutionalized New York City mental patients had disproportionate arrest rates for rape, burglary, and aggravated assault); Larry Sosowsky, Crime and Violence Among Mental Patients Reconsidered in View of the New Legal Relationship Between the State and the Mentally Ill, 135 *Am. J. Psychiatry* 33-42 (1978) (San Mateo County, California, mental patients showed grossly disproportionate arrest rates for murder, rape, robbery, aggravated assault, and burglary; 55

that 16.2 percent of state prison inmates, 7.4 percent of federal prison inmates, and 16.3 percent of jail inmates, were mentally ill.¹¹⁵ A study of Indiana murder convicts found that 18 percent were severely mentally ill, suffering from “schizophrenia or other psychotic disorder, major depression, mania, or bipolar disorder.”¹¹⁶ The Indiana murder convicts diagnosed with schizophrenia were 3.7 percent of the murder convicts,¹¹⁷ compared to 1.1 percent of the U.S. adult population.¹¹⁸

Untreated mental illness started this current campaign and many of the subsequent mass murders have had at their root mental illness which was unseen, ignored, or where state laws or policies made involuntary commitment impossible.¹¹⁹

times more likely to be arrested for murder than the general population in 1973; 82.5 times more likely to be arrested to be arrested for murder in 1972; nine times more likely to be arrested for rape, robbery, aggravated assault, and burglary than the general population); Larry Sosowsky, Explaining the Increased Arrest Rate Among Mental Patients: A Cautionary Note, 137 *Am. J. Psychiatry* 1602-5 (1980) (even mental patients with no pre-hospitalization arrests were five times as likely to be arrested as the general population for violent crimes); H. Richard Lamb & Linda E. Weinberger, Persons with Severe Mental Illness in Jails and Prisons: A Review, 49 *Psychiatric Services* 483-92 (1998); Jeanne Y. Choe, Linda A. Teplin & Karen M. Abram, Perpetration of Violence, Violent Victimization, and Severe Mental Illness: Balancing Public Health Concerns, 59 *Psychiatric Services* 153-164 (Feb. 2008) (Studies in Denmark and Sweden found that psychotics are disproportionately violent offenders); Eric B. Elbogen & Sally C. Johnson, The Intricate Link Between Violence and Mental Disorder: Results From the National Epidemiologic Survey on Alcohol and Related Conditions, 66 *Archives of General Psychiatry* 152-161 (2009) (“violence and violent victimization are more common among persons with severe mental illness than in the general population.”)

¹¹⁵ Paula M. Ditton, Bureau of Justice Statistics, Mental Health and Treatment of Inmates and Probationers (Washington: U.S. Department of Justice, 1999), NCJ 174463, available at <https://bjs.ojp.gov/library/publications/mental-health-and-treatment-inmates-and-probationers>

¹¹⁶ Jason C. Matejkowski, Sara W. Cullen & Phyllis L. Solomon, Characteristics of Persons with Severe Mental Illness Who Have Been Incarcerated for Murder, 36 *J. Am. Acad. Psychiatry & Law* 74, 76 (2008).

¹¹⁷ *Id.* at 80.

¹¹⁸ National Institute of Mental Health, *Schizophrenia* (August 21, 2013), <http://www.nimh.nih.gov/statistics/1schiz.shtml>.

¹¹⁹ See Clayton E. Cramer, *Mental Illness and the Second Amendment*, 46 *Conn. L.R.* 4:1301 (2014) for an examination of this problem and Clayton E. Cramer, *My Brother Ron: A Personal and Social History of the Deinstitutionalization of the Mentally Ill* (2012) for how we got here.

Fix the root problem or mass murderers will use the weapons they have historically used in the United States: arson,¹²⁰ vehicles,¹²¹ explosives,¹²² hammers,¹²³ axes,¹²⁴ poison,¹²⁵ aircraft,¹²⁶ and train derailments.¹²⁷ Or they might use the weapons mass murderers use in other nations: arson;¹²⁸ vehicles;¹²⁹ explosives,¹³⁰ sharp objects,¹³¹ hammers,¹³² poison gas,¹³³ and of course, in spite of much stricter firearms laws, guns.¹³⁴

¹²⁰ 3 Teamsters Charged in San Juan Hotel Fire,” *Chicago Tribune*, Feb. 4, 1988, <https://www.chicagotribune.com/news/ct-xpm-1988-02-04-8803270617-story.html>, last accessed November 24, 2018 (97 dead); Ralph Blumenthal, *Fire in the Bronx; 87 Die in Blaze at Illegal Club; Police Arrest Ejected Patron; Worst New York Fire Since 1911*, *NEW YORK TIMES*, Mar. 26, 1990 (87 dead); Phil Luciano, *9-year-old arraigned on murder charges in deadly Goodfield arson fire*, *PEORIA JOURNAL STAR*, Oct. 21, 2019 (5 dead).

¹²¹ Lauren del Valle, Ray Sanchez and Eric Levenson, *Terror suspect accused of killing 8 people on NYC bike path still believes in ISIS, defense attorney says*, *CNN*, January 9, 2023.

¹²² FBI, *Oklahoma City Bombing*, <https://www.fbi.gov/history/famous-cases/oklahoma-city-bombing>, last accessed January 31, 2023 (168 dead); *Fate Saves Scores in Blast When Maniac’s Plot Kills 43*, [Washington, D.C.] *EVENING STAR*, May 19, 1927, 1; *Los Angeles, on Election Eve, in Ferment Over Confession of the McNamaras*, [Chicago, Ill.] *THE DAY BOOK*, Dec. 2, 1911, 1 (21 dead); *Seven Detectives and Three Miners Dead*, *SEATTLE STAR*, Jul. 26, 1912, 1 (10 dead).

¹²³ *A Family Slain*, *KANSAS CITY JOURNAL*, Mar. 4, 1899, 1 (5 dead).

¹²⁴ *Five Battered With An Axe*, [Keokuk, Ia.] *DAILY GATE CITY*, Oct. 17, 1911, 1 (5 dead); *Mystery of 30 Axe-Murders is Believed Near Its Solution*, *ALBUQUERQUE MORNING JOURNAL*, Mar. 22, 1915, 1 (police believed one man murdered 29 people in five families over three years).

¹²⁵ *A Modern Borgia*, *NASHVILLE UNION AND AMERICAN*, Oct. 27, 1868, 1 (the maid murdered a family of seven).

¹²⁶ FBI, *CRIME IN THE UNITED STATES: 2001*, Section 5, <https://ucr.fbi.gov/crime-in-the-u.s/2001/01sec5.pdf> (3047 dead); *Id.*, (184 dead); *Id.*, (40 dead); Judith Cummings, *Kin of Suspect Defiant and Contrite*, *New York Times*, Dec. 11, 1987 (44 dead).

¹²⁷ *Crack Flyer Jumps Track*, [De Kalb, Illinois] *DAILY CHRONICLE*, Mar. 17, 1941, 1 (5 dead).

¹²⁸ *A Decade On, Childers Remembers Hostel Fire Tragedy*, *BRISBANE [Australia] TIMES*, Jun. 23, 2010 (15 dead); Candace Sutton, *Man Who Murdered 11 People in Nursing Home Fire 'Frothed At The Mouth' From Drugs And 'Put Nails In Tyres And Poured Paint' Over Boss's Car, Inquest Hears*, [U.K.] *DAILY MAIL*, Sep. 8, 2014. (11 dead); Makiko Inoue, Motoko Rich and Hikari Hida, *24 Dead in Suspected Arson at Office Building in Japan*, *N.Y. TIMES*, Dec. 16, 2021.

¹²⁹ *Toronto is the most recent of many deliberate attacks involving vehicles*, *USA TODAY*, Apr. 23, 2018 (10 dead in Toronto attack, 14 dead in Barcelona, Spain, 8 on London Bridge, 12 in Berlin, Germany); *Nice attack: Trial for Bastille Day massacre which killed 86 begins*, *BBC*, Sep. 5, 2022 (86 dead); *Australian who rammed and killed six pedestrians jailed for life*, *REUTERS*, Feb. 21, 2019 (6 dead); Alex Johnson, *A Short History of Vehicles Being Used as Deadly Weapons*, *NBC News*, Jul. 15, 2016 (8 dead).

¹³⁰ Andrew Higgins and Kimiko De Freytas-Tamura, *In Brussels Bombing Plot, a Trail of Dots Not Connected*, *NEW YORK TIMES*, March 26, 2016 (33 dead); Sylvia Hui, *Bomber's brother gets 55 years for Manchester concert attack*, *Associated Press*, Aug. 20, 2020 (22 dead).

¹³¹ Jason Van Rassel, *Police officer's son charged in city's worst mass murder*, *CALGARY [Alberta] HERALD*, Apr. 17, 2014 (5 dead); Jonathan Pearlman, *Eight Children Murdered In Mass Stabbing In Australia*, [U.K.] *TELEGRAPH*, Dec. 19, 2014 (8 dead); Robert Foyle Hunwick, *Why Does China Have So Many School Stabbings?*, *New Republic*, Nov. 2, 2018 (summarizing 14 knife mass murders in two incidents); David Mercer, *Canada mass stabbing: Trudeau urges public to 'be careful' over two men suspected of killing 10 people*, *SKY NEWS*, Sep. 5, 2022 (10 dead).

¹³² Jamelle Wells, *Robert Xie Trial: Lin Family 'Murdered With Hammer Bought From \$2 Shop*, *ABC [Australia]*, May 12, 2014 (5 dead).

¹³³ *Japan marks 25 years since deadly Aum sarin attack on Tokyo subway*, *Japan Times*, Mar. 20, 2020 (14 dead).

¹³⁴ *Gunman's Rampage in France Leaves 14 Dead*, *Los Angeles Times*, Jul. 13, 1989; *Teen-Age Gunman Kills Himself and 12 Others in France*, *New York Times*, Sep. 25, 1995; Nick Caistor, *Profile of a Teenage Killer*, *BBC News*, Apr. 28, 2002; *18 Dead in German School Shooting*, *BBC News*, Apr. 26, 2002; *Brazil School Shooting: Twelfth Child Dies*, *SkyNews*, Apr. 8, 2011; James Graff, *Politics Under the Gun*, *Time*, Mar. 31, 2002 (8 dead; 18 wounded in France); *Safety Council To Investigate Gun Laws, DutchNews.nl*, Apr. 12, 2011, http://www.dutchnews.nl/news/archives/2011/04/safety_council_to_investigate.php, last accessed May 21, 2011; *Schutter was al eerder suïcidaal*, *NOS Nieuws*, Apr. 10, 2011, <http://nos.nl/artikel/232127-schutter-was-al-eerder-suïcidaal.html>, last accessed May 21, 2011.

IV. Randolph Roth

This section analyzes Prof. Roth's Expert Report concerning the "history of homicides and mass murders in the United States. I take particular exception to his interpretation of the influence of firearms technology on murder and mass murder in particular.

A. Homicide and Firearms in the Colonial Era (1688-1763)

1. Regional and Cultural Variation

Starting at ¶20 Roth provides a plausible set of explanations for changing murder rates by region and over time. He misses several explanations that might significantly contribute to murder rates, single or mass murder and regardless of weapon type: imported cultural traditions; religious beliefs, and population density.

The early British settlements in America established patterns of family life and acceptable individual behavior, and these cultural patterns persisted into the nineteenth century, often influencing regional levels of violence. As David Hackett Fischer has exhaustively documented, four distinctive British folkways dominated eighteenth- and early nineteenth-century American society, and still influence it today: Puritan New England; Cavalier Virginia; Quaker Pennsylvania; and back country Scots-Irish. Nor is this a recent discovery: the British novelist Frederick Maryatt visiting America in 1837, identified this country as still constituting distinct cultures: "[T]he puritan of the east, the Dutch descent of the middle states, the cavalier of the south . . . nearly as marked and distinct now, as at the first occupation of the country; softened down indeed, but still distinct. Not only are the populations of the various states distinct, but even those of the cities. . . ." ¹³⁵

¹³⁵. Frederick Marryat, *Diary in America*, ed. Jules Zanger 36 (1839)

Puritan New England was disproportionately settled by entire families, many of them representatives of “the sturdy middle class of England.”¹³⁶ With its emphasis on family life, self-discipline, and the consequences of sin, Puritan New England set a pattern that replicated itself as Yankees migrated west across the continent.¹³⁷ This cultural pattern of self-discipline and social order appears to have played a part in keeping serious violent crimes rare in Boston and New York City until the 1830s, when large numbers of Irish immigrants arrived, ending the cultural homogeneity of these cities.¹³⁸

The Quakers, while attaching less importance to marriage than the Puritans,¹³⁹ shared the Puritan desire for social order and peace. Frances Wright, describing 1820 Philadelphia, observed the Quaker influence in “the orderly behaviour of the citizens. You not only see no riots in the streets, but no brawls. . . .”¹⁴⁰ While the Quaker ideal of social order was different from that of the Puritans, the Quaker system of punishments was even more severe (except for capital punishment, which the Quakers opposed).¹⁴¹ Even after the Quakers had ceased to control the Delaware Valley, their culture persisted. Not surprisingly, migrants heading west from the Delaware Valley carried these values about peace and social order with them.¹⁴²

Cavalier Virginia, because of the commercial motivations that underlaid the colony and because of high female death rates (caused by an unhealthy combination of temperature,

¹³⁶ David Hackett Fischer, *ALBION’S SEED: FOUR BRITISH FOLKWAYS IN AMERICA* 26-31 (1989); Virginia Dejohn Anderson, *Migrants and Motives: Religion and the Settlement of New England, 1630-1640*, 58 *NEW ENGLAND QUARTERLY* 339-383 (1985), in Stanley N. Katz, John M. Murrin, and Douglas Greenberg, eds., *COLONIAL AMERICA: ESSAYS IN POLITICS AND SOCIAL DEVELOPMENT* 102-106 (4th ed. 1993).

¹³⁷ David T. Courtwright, *Violent Land: Single Men and Social Disorder from the Frontier to the Inner City* 48-49 (1996).

¹³⁸ James F. Richardson, *Urban Police in the United States* 19 (1974); Roger Lane, *Policing the City: Boston 1822-1885* 26-38 (1967); Frances Wright, *Views of Society and Manners in America*, ed. Paul R. Baker 16-18 (1963).

¹³⁹ Fischer, *ALBION’S SEED*, 487-488.

¹⁴⁰ Frances Wright, *VIEWS OF SOCIETY*, 236.

¹⁴¹ Fischer, *ALBION’S SEED*, 494-499, 584-589.

¹⁴² Fischer, *Albion’s Seed* 594-595.

mosquitoes, and swamps), was dominated by single young men. The culture that developed there was disordered and violent in a way that the Puritan and Quaker cultures were not. A consequence of this single male culture was the South's emphasis on honor—and the use of violence to avenge insults to honor.¹⁴³

Nor is this a later interpolation. As early as the 1830s, at least one traveler through the Old Southwest observed that the surplus of single young men caused an increase in violence and dueling.¹⁴⁴ While of a somewhat later era (1850s Nevada and postbellum California), Roger McGrath statistically demonstrated that violent crime rates in the wildest frontier mining camps of the Sierra Nevada were low in every category except for murder, where single males fought to the death because of “honor, pride, and courage.” In many respects, McGrath's description of this culture sounds very southern—or perhaps the problems of single young men transcend culture.¹⁴⁵

Perhaps the most important of these cultural factors arrived between 1717 and 1775, when a vast swarm of British immigrants arrived for whom violence was not a consequence of too many

¹⁴³. Courtwright, *Violent Land*, 27-30; Edward L. Ayers, *Vengeance and Justice: Crime and Punishment in the 19th-Century American South* 20-21 (1984). Bertram Wyatt-Brown, SOUTHERN HONOR: ETHICS AND BEHAVIOR IN THE OLD SOUTH 166-174 (1982), provides examples of how southern culture glorified fighting and dueling, even at the expense of young men's lives.

Wyatt-Brown, SOUTHERN HONOR 20, argues that dueling had been common in the North before the Revolution but declined in response to Beecher's attacks on dueling. But a minority viewpoint, articulated in Bruce Baird, “The Social Origins of Dueling in Virginia,” in Michael Bellesiles, ed., *LETHAL IMAGINATION: VIOLENCE AND BRUTALITY IN AMERICAN HISTORY* (1999), 87-112, argues that colonial Virginia was not a particularly violent culture until shortly before the Revolution, when back country Scots-Irishmen become an increasingly important influence on the tidewater Cavaliers.

¹⁴⁴. Joseph Holt Ingraham, 2 *The South-West: By a Yankee* 45-9 (1835).

¹⁴⁵. Roger D. McGrath, *Gunfighters, Highwaymen, and Vigilantes: Violence on the Frontier* 247-255 (1984).

single young men but was a fundamental part of their way of life. Often called Scots-Irish,¹⁴⁶ these settlers came from the English and Scottish border counties, sometimes after a stay in Ulster.¹⁴⁷

Like the Puritans, these immigrants were likely to arrive as family units. Sometimes, entire communities emigrated together.¹⁴⁸ Unlike Virginia cavalier culture, gender ratio should not have made these immigrants peculiarly violent. Instead, they brought a culture of violence with them. Two differing theories have been offered to explain this level of violence: In some ways, they are complementary not competing theories.

One theory holds that the absence of effective government created a culture in which private violence, both defensive and offensive, was the only practical way to survive. From the eleventh century to the close of the eighteenth century, the borderlands between Scotland and England were the scene for continual warfare and private criminal behavior. Ambrose Bierce's cynical definition of a pacifist as a "dead Quaker" suggests at least one reason why defensive and offensive violence became a part of the culture: In an area where rape, torture, and murder were common and no effective legal system existed, those reluctant to use deadly force would be at a serious disadvantage. The inhabitants developed a callous disregard for law and the lives of others; survivors pass on their culture much more effectively than the dead. These values became a part of the Scots-Irish culture.¹⁴⁹

¹⁴⁶. Fischer, *Albion's Seed*, 618-621, does an effective job of demonstrating the misleading nature of the term "Scots-Irish." Alas, the term is so thoroughly ingrained in the American lexicon that it seems beyond hope to call them "borderlanders."

¹⁴⁷. James G. Leyburn, *The Scotch-Irish: A Social History* 157 (1962), says that 250,000 immigrated just from Ulster during this period.

¹⁴⁸. Fischer, *Albion's Seed*, 608-610. One example of this Scots-Irish family group migration is the 1730 arrival of the McConnell, Young, and Setlington families from northern Ireland. Ethel McConnell Bartindale, *History of the McConnell Family* 6-7 (1923). The McConnells were my *very* peaceful and civilized ancestors.

¹⁴⁹. Fischer, *Albion's Seed*, 621-632; Ayers, *Vengeance and Justice*, 21-23. Leyburn, *The Scotch-Irish*, 3-13, describes the causes for this culture of violence in greater detail than Fischer, though arguing that the level of violence significantly decreased by 1610, even though the cultural values associated with it persisted.

Another theory argues that the Scots-Irish culture of violence was a product of an economy based on herding on marginal agricultural lands. Where poor soils or a lack of rain make lands marginal for farming, herding takes its place, as it did in both Scotland and many of the mountainous and arid parts of the American South. Herding and its cause, poor agricultural lands, carry with it three closely related problems that lead to a culture of honor and violence: portability of goods, poverty caused by poor soils, and an absence of effective government because of a limited tax base.

Because a herder's livelihood is dependent on a readily transportable form of property, he is much more likely to suffer theft than a farmer. Crops cannot be cajoled into walking away, unlike sheep or cattle. Crops are often less valuable per weight, and therefore the incentive to steal crops is less. Consider how widespread the problem of cattle rustling was in the American West, while there is no equivalent specialized term for the theft of wheat "on the hoof." A herder must then be able and willing to defend his livestock from theft—and in remote settings where he may have little or no assistance from government.

Rustlers will attack whom they perceive as the weakest herdsman to steal his livestock. Members of a herding culture must therefore be sensitive to insult, "to preserve the individual's reputation for being willing and able to carry out violence if needed."¹⁵⁰ Hence, the culture of honor exists—one in which how others perceive your willingness to defend what is yours matters very much. This would suggest that in exchange for reduced property crimes, such a society experiences increased crimes of violence as herdsmen demonstrate this willingness to fight. Not surprisingly, with such a tradeoff, property crimes appear to have been rare in the South relative

¹⁵⁰. Richard E. Nisbett and Dov Cohen, *Culture of Honor: The Psychology of Violence in the South* 89 (1996).

to crimes of violence.¹⁵¹ Perhaps the southerner's willingness to use force to protect property explains why property crimes were rare and crimes of violence were common.

At the same time, the poverty of a region dependent on herding makes it more likely that thieves will risk injury or death to steal livestock because the alternative may be hunger or even starvation. Agricultural societies usually have sufficient surpluses (assuming equivalent distribution of wealth) that stealing is not necessary to avoid hunger. Not only must the herder have the ability to defend his herd from theft, but his need to protect his livestock is likely higher as well because of the poverty of a herding society.

Finally, herding societies, because of their limited tax base, often have limited criminal justice systems. The herder must therefore deal with problems of theft himself if he wishes to protect his livelihood.¹⁵² Whether the herding economic base caused the culture of honor in Scotland or not, herding dominated the economy in the antebellum southern uplands, with farming a sideline—as had been the case for centuries in the borderlands whence came the Scots-Irish.¹⁵³

2. Homicide in Colonial America

Prof. Roth in ¶17 argues that “Violence among colonists was not a pressing problem on the eve of the Revolution.” I would completely agree that this was true, but I disagree strongly with his reasons for why.

First, homicide rates were low among colonists from the Glorious Revolution of 1688-1689 through the French and Indian War of 1754-1763, thanks to political stability, a surge in patriotic fellow feeling within the British empire, and greater trust in government.

¹⁵¹ Grady McWhiney, *Cracker Culture: Celtic Ways in the Old South* 166-7 (1988).

¹⁵² Nisbett and Cohen, *Culture of Honor*, 5-11, 88-90.

¹⁵³ McWhiney, *CRACKER CULTURE*, 51-56, 64-78. Malcolm J. Rohrbough, *THE TRANS-APPALACHIAN FRONTIER: PEOPLE, SOCIETIES, AND INSTITUTIONS 1775-1850* 288 (1978), also notes the emphasis on herding, not farming, in the Old Southwest.

Roth's source is Roth's book *American Homicide* 63. This is not evidence; it is "trust me, I know what I am doing." Review of that chapter in Roth's book has a lot of very plausible arm-waving but not evidence that would persuade someone who did not already share Roth's assumptions or trust in...Randolph Roth. Roth provides no evidence to show that political stability increased, that patriotism increased or trust in government increased.

We need to examine Roth's definitions. These homicide rates are not *murder* rates, which makes comparison to current murder rates invalid. First of all, Roth repeatedly indicates that he is looking at homicides by "unrelated adults."¹⁵⁴ About 6% of murder victims in 2019 were under 18.¹⁵⁵ It seems likely that murder of minors (which at that time would have included all under 21 years) would have been similarly common. "A survey of murder cases disposed in 1988 in the courts of large urban counties indicated that 16% of murder victims were members of the defendant's family."¹⁵⁶

Damaging comparability the other direction, Roth tells us that his homicide numbers include "assaults that were legally justified or not meant to cause death."¹⁵⁷ About 6% of recent civilian homicides are either initially or subsequently (as the case moves from arrest through indictment and trial) classified as justifiable or excusable. Justifiable homicides are killings of a person engaged in a felony; excusable homicide includes a variety of both unintentional killings ("committed by accident and misfortune, or in doing any other lawful act by lawful means, with usual and ordinary caution, and without any unlawful intent") and a surprisingly catch-all category of intentional killings: "When committed by accident and misfortune, in the heat of passion, upon

¹⁵⁴ Roth, *AMERICAN HOMICIDE* 61, Figure 2.3 at p. 95 (2009).

¹⁵⁵ FBI, *CRIME IN THE UNITED STATES 2019*, Expanded Homicide Data Table 2 (2019).

¹⁵⁶ John M. Dawson and Patrick A. Langan, *Murder in Families*, BUREAU OF JUSTICE STATISTICS SPECIAL REPORT 1 (Jul. 1994).

¹⁵⁷ Randolph Roth, *AMERICAN HOMICIDE* xii (2009).

any sudden and sufficient provocation, or upon a sudden combat, when no undue advantage is taken, nor any dangerous weapon used, and when the killing is not done in a cruel or unusual manner.”)¹⁵⁸

Roth at ¶17: “By the late 1750s and early 1760s, the rates at which *adult* colonists were killed were roughly 5 per 100,000 adults per year in Tidewater Virginia, 3 per 100,000 in Pennsylvania, and 1 per 100,000 in New England.” These are rates not terribly different from current U.S. murder rates. Roth’s numbers however understate murder rates. This gives a warmer and cozier picture of colonial America than it was.

New England especially was doing *something* right, but what? Roth at p. 10 has a second explanation, but one that explains too much:

Firearm use in homicides was generally rare because muzzle-loading firearms, such as muskets and fowling pieces, had significant limitations as murder weapons in the colonial era. They were lethal and accurate enough at short range, but they were liable to misfire, given the limits of flintlock technology; and with the exception of a few double-barreled pistols, they could not fire multiple shots without reloading. They could be used effectively to threaten and intimidate, but once they were fired (or misfired), they lost their advantage: they could only be used as clubs in hand-to-hand combat. They had to be reloaded manually to enable the firing of another shot, which was a time-consuming process that required skill and experience.

One blackpowder muzzle loading firearm of the time could fire large numbers of bullets without reloading: the blunderbuss. Often portrayed in cartoon representations of Pilgrim hunting:

¹⁵⁸ Clayton E. Cramer, *Why the FBI’s Justifiable Homicide Statistics Are a Misleading Measure of Defensive Gun Use*, 27 U. FLA. J.L. & PUB. POL’Y 505 (2016).



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The blunderbuss was a shotgun with a belled muzzle intended to distribute shot at close range where it would be devastating. Soldiers often used them to repel boarders at sea or while boarding ships at sea. They were also “the preferred weapon of coach guards... and defense of close spaces such as buildings and in dealing with unruly crowds.”¹⁶⁰ They were loaded with up to 20 pellets of buckshot. #0 buckshot is .33 caliber.¹⁶¹ At close range, they would be firing 20 lead balls the diameter of a modern 9mm bullet. While likely less lethal beyond 20 yards (hunting distance for fowl), the state of medical knowledge would likely have made them as fatal as being attacked with a modern pistol.

Were blunderbusses commonly owned? They appear for sale in ads,¹⁶² in murder cases,¹⁶³ and inventories of confiscated weapons. When General Gage ordered the citizens of Boston turn

¹⁵⁹ *Blunderbuss, the “Thunder Box” of the Battlefield*, American Revolution Institute of the Society of the Cincinnati, <https://www.americanrevolutioninstitute.org/recent-acquisitions/english-blunderbuss/>, last accessed February 5, 2023.

¹⁶⁰ Spencer C. Tucker, *INSTRUMENTS OF WAR: WEAPONS OF TECHNOLOGY THAT HAVE CHANGED HISTORY* 72-73 (2015).

¹⁶¹ Chris Baker, *Buckshot*, <https://www.luckygunner.com/lounge/stuff-you-should-know-about-buckshot-part-1/>, last accessed February 5, 2023.

¹⁶² *Boston Gazette*, May 30, 1720.

¹⁶³ In 1630, ten years after his arrival at Plymouth, John Billington, who had been in continual trouble at Plymouth, was convicted of murdering John Newcomen with a blunderbuss, after some quarrel now lost to history. George F. Willison, *SAINTS AND STRANGERS* 308 (1981)/

in their firearms after the unpleasantness at Lexington, the more gullible citizens turned in thousands of weapons including 38 blunderbusses.¹⁶⁴

The single shot nature of a muzzle loader certainly would have deterred their use for mass murder. There are many other plausible explanations for the rarity of homicides in that time. There were no cities. Even today, population density in America is strongly correlated with murder: Metropolitan Statistical Areas have 5.1/100,000 murders, compared to 4.5 for cities outside metropolitan areas and 3.9 for Nonmetropolitan counties.¹⁶⁵ And few nonmetropolitan counties in America today could even begin to compare to any New England county for population. Murder rates in New England today remain among the lowest in the nation (Maine: 1.5/100,000; New Hampshire: 2.2; Vermont: 1.8; compared to the U.S.: 5.0),¹⁶⁶ even with until recently some of the most relaxed gun laws in America (Giffords Law Center to Prevent Gun Violence Annual Gun Law Scorecard: Maine: F; New Hampshire F; Vermont C-).¹⁶⁷ Many other states are awash in modern guns, relaxed gun laws, and murder rates that are only slightly worse than colonial New England. My home state, Idaho, which does not even require a license to carry, and has no machine gun regulation, is 2.0/100,000; South Dakota (1.9); Wyoming (2.2).¹⁶⁸ All three states get an F from Giffords.¹⁶⁹ Considering that Roth's homicide rates undercount murders by excluding children and murders by relatives, none of these states with *very* relaxed gun laws and widespread availability of modern firearms seem to be doing much worse today than colonial New England. Perhaps Roth needs to consider other explanations?

¹⁶⁴ Richard Frothingham, HISTORY OF THE SIEGE OF BOSTON, AND OF THE BATTLES OF LEXINGTON, CONCORD, AND BUNKER HILL 94-95 (6th ed., 1903).

¹⁶⁵ FBI, CRIME IN THE UNITED STATES 2019 Table 2.

¹⁶⁶ FBI, CRIME IN THE UNITED STATES 2019 Table 4.

¹⁶⁷ Giffords Law Center to Prevent Gun Violence, *Annual Gun Law Scorecard*, <https://giffords.org/lawcenter/resources/scorecard/>, last accessed July 16, 2023.

¹⁶⁸ FBI, Crime in the United States: 2019, Table 4.

¹⁶⁹ Giffords Law Center to Prevent Gun Violence, *Annual Gun Law Scorecard*, <https://giffords.org/lawcenter/resources/scorecard/>, last accessed July 16, 2023.

3. Black Powder

At ¶19, Roth suggests an explanation for why a society where guns were widespread did not have a substantial gun murder problem:

And muzzle-loading guns were difficult to keep loaded for any length of time, because black powder absorbed moisture and could corrode the barrel or firing mechanism or make the charge liable to misfire. The life of a charge could be extended by storing a gun in a warm, dry place, typically over a fireplace, but even there, moisture from boiling pots, drying clothes, or humid weather could do damage. That is why most owners stored their guns empty, cleaned them regularly, and loaded them anew before every use.

This would be a persuasive and logical argument except for what the people who lived then tell us. Massachusetts Governor Winthrop's journal reports several accidental deaths or injuries caused by colonists failing to follow this very logical action:

And:

Three men coming in a shallop from Braintree, the wind taking them short at Castle Island, one of them stepping forward to hand the sail, caused a fowling piece with a French lock, which lay in the boat, to go off. The whole charge went through the thigh of one man within one inch of his belly, yet missed the bone, then the shot (being goose shot) scattered a little and struck the second man under his right side upon his breast, so as above 40 shot entered his body, many into the capacity of his breast.¹⁷⁰

Children were not safe from these rarely loaded firearms:

It is observable that this man had gathered some providences about such as were against them, as that Mr. Winslow's horse died, as he came riding to Boston; that *his brother's son (a child of eight years old) had killed his own sister (being ten years of age) with his father's piece*, etc., and his great trouble was, least this providence which now befell him, should be imputed to their cause.¹⁷¹ [emphasis added]

And:

One Richard Sylvester, having three small children, he and his wife going to the assembly, upon the Lord's day, left their children at home. The eldest was without

¹⁷⁰ Id. 2:55.

¹⁷¹ Id., 2:317.

doors looking to some cattle ; the middle-most, being a son about five years old, seeing his father's fowling piece, (being a very great one,) stand in the chimney, took it and laid it upon a stool, as he had seen his father do, and pulled up the cock, (the spring being weak,) and put down the hammer, then went to the other end and blowed in the mouth of the piece, as he had seen his father also do, and with that stirring the piece, being charged, it went off, and shot the child into the mouth and through his head.¹⁷²

These four incidents of firearms kept loaded when not in actual use resulting in serious misadventure are in *one* book. How many of these loaded firearms sat quietly in their place, never accidentally discharging? How many incidents are in books that I have not read?

Finally, there is one more piece of evidence that Americans had loaded firearms when not ready for use. In 1783, Massachusetts passed a statute that shows firearms were kept loaded regularly enough to justify a law regulating the practice.

The preamble “WHEREAS the depositing of loaded arms in the houses of the town of Boston, is dangerous to the lives of those who are disposed to exert themselves when a fire happens to break out in the said town” establishes that it was a fire safety measure.

Sect. 2. And be it further enacted by the authority aforesaid, That all canon, swivels, mortars, howitzers, cohorns, fire-arms, grenades, and iron shells of any kind, that shall be found in any dwelling-house, out-house, stable, barn, store, ware-house, shop, or other building, charged with, or having any dwelling in them any gun-powder, shall be liable to be seized by either of the Firewards of the said town...

You were free to keep small arms, cannon, small artillery, bombs, and grenades at home, as long as they were unloaded. Why was there a need for such a law unless firearms (and artillery) were at least occasionally left loaded? Would we pass a law today ordering that you not leave children unsupervised at a pool if no one did this?

Roth at ¶ 21 asserts: “Otherwise, however, colonists seldom went about with loaded guns, except to hunt, control vermin, or muster for militia training.” His source is himself. Almost every

¹⁷² Id., 2:72.

colony required colonists to carry arms to church for security against either Indian attack or slave rebellion, or while travelling out of the colony.¹⁷³ It is certainly possible that except when ordered to do so, colonists were not generally armed. Roth needs more than his say-so. That so many

¹⁷³ 1770 Georgia: "An act for the better security of the inhabitants by obliging the male white persons to carry fire arms to places of public worship." 19(part 1) THE COLONIAL RECORDS OF THE STATE OF GEORGIA (1910), :137-140. this law required all white male inhabitants to carry either a long gun or a pair of pistols to church Id. at 138; "That the church warden or church wardens of each respective parish, and the deacons, elders or select men... to examine all such male persons" to make sure that they were armed." Id. at 138, 139.

1642 Maryland: "'Noe man able to bear arms to goe to church or Chappell or any considerable distance from home without fixed gunn and 1 Charge at least of powder and Shott.'" 3 ARCHIVES OF MARYLAND 103 (1885);

1630/1 Massachusetts: "Further, it is ordered, that noe pson shall travel single betwixte theis plantation & Plymouthe, nor without some armes, though 2 or 3 togeathr." 1 RECORDS OF THE GOVERNOR AND COMPANY OF THE MASSACHUSETTS BAY IN NEW ENGLAND 85 (1853); 1636/7 Because of the danger of Indian attack, and because much of the population was neglecting to carry guns, every person above eighteen years of age (except magistrates and elders of the churches) were ordered to "come to the publike assemblies with their muskets, or other peeeces fit for servise, furnished with match, powder, & bullets, upon paine of 12d. for every default". And no person shall travel above one mile from his dwelling house, except in places wheare other houses are neare together, without some armes, upon paine of 12d. for every default." Id. at 190.

1646 New Haven Colony When militiamen were called by the beating of the drum "to the publike worship of God" they were to show up "with their armes compleat, their guns ready charged, with their match for their matchlocks and flints ready fitted in their firelocks". RECORDS OF THE COLONY AND PLANTATION OF NEW HAVEN, FROM 1638 TO 1649 '32 (1857);

1641 Plymouth Colony "It is enacted That every Towneship within this Government do carry a competent number of pieeces fixd and compleate with powder shott and swords every Lord's day to the meetings--one of a house from the first of September to the middle of November, except their be some just & lawfull impedymnt." THE COMPACT WITH THE CHARTER AND LAWS OF THE COLONY OF NEW PLYMOUTH 70 (1836); 1658: ordered 1/4 of the militia "carry theire armes" to church every Sunday, defined as "some serviceable peece and sword and three charges of powder and bullets" or be fined "2 shillings and six pence...." Id. at 115; 1681: Also, the statute of 1658 requiring 1/4 of the militia to bring their guns to church every Sunday was updated to require "six charges of powder same shott" from "beginning of Aprill to the end of October yearly...." Id. at 192, 193;

1639 Rhode Island "It is ordered, that noe man shall go two miles from the Towne unarmed, eyther with Gunn or Sword; and that none shall come to any public Meeting without his weapon." There was a fine of five shillings for failing to be armed in either circumstance." 1 RECORDS OF THE COLONY OF RHODE ISLAND AND PROVIDENCE PLANTATIONS, IN NEW ENGLAND 94 (1856); 1643 reiterated an earlier order "for every man to have so much powder, and so many bullets, and so the forwarning is to stand still in force; and also that every man do come armed unto the meeting upon every sixth day" 1 RECORDS OF THE COLONY OF RHODE ISLAND AND PROVIDENCE PLANTATIONS, IN NEW ENGLAND 79, 80 (1856);

1743 South Carolina required: "That within three months from the time of passing this Act , every white male inhabitant of this Province , (except travellers and such persons as shall be above sixty years of age,) who, by the laws of this Province is or shall be liable to bear arms in the militia of this Province, either in times of alarm or at common musters, who shall, on any Sunday or Christmas day in the year, go and resort to any church or any other public place of divine worship within this Province , and shall not carry with him a gun or a pair of horse pistols , in good order and fit for service, with at least six charges of gun- powder and ball , and shall not carry the same into the church or other place of divine worship as aforesaid , every such person shall forfeit and pay the sum of twenty shillings" 7 THE STATUTES AT LARGE OF SOUTH CAROLINA: EDITED UNDER AUTHORITY OF THE LEGISLATURE 417 (1840);

1619 Virginia "All persons whatsoever upon the Sabaoth daye shall frequente divine service and sermons both forenoon and afternoon, and all suche as beare armes shall bring their pieeces swordes, poulder and shotte. And every one that shall transgresse this lawe shall forfaicte three shillinges a time to the use of the church." NARRATIVES OF EARLY VIRGINIA 1606-1625 273 (1907).

colonists were regularly carrying loaded firearms without murdering each other suggests technology was not the reason for colonial New England's peace.

C. Homicide in the Early Republic/Population Density

Most baffling is Roth's apparent indifference to the role of population density. At ¶24: "By the 1820s, rates had fallen to 3 per 100,000 adults per year in Cleveland and Philadelphia, to 2 per 100,000 in rural Ohio, and to 0.5 per 100,000 in northern New England. Only New York City stood out, at 6 per 100,000 adults per year." New York City had 123,706 people at the 1820 census; Philadelphia 63,802. These were the two largest cities in America.¹⁷⁴ The anonymity of large cities makes it far easier for a murderer to escape justice; this is such a large oversight as to make me scratch my head in wonder that he could compare areas of such radically different densities with no apparent awareness that population density might explain these murder rate differences.

At ¶24, Roth claims: "And the proportion of domestic and nondomestic homicides committed with firearms was similarly low—between 0 and 10 percent—because people once again generally refrained, as they had from the Glorious Revolution through the French and Indian War, from going about armed, except to hunt, control vermin, or serve in the militia." We now that they did not go around armed because they were not murdering each other? This is circular reasoning. Perhaps there were few reasons to kill each other. In many states today, most of the adult population is allowed to carry concealed firearms without a license and many are regularly armed and we still have low murder rates.

¹⁷⁴ U.S. Census, *1820 Fast Facts*, https://www.census.gov/history/www/through_the_decades/fast_facts/1820_fast_facts.html, last accessed February 6, 2023.

At ¶26, more circular reasoning: “Because gun use was generally limited to hunting, controlling vermin, or serving in the militia, there was little interest among public officials in the North in restricting the use of firearms during the Early National period, except in duels.” Or people generally behaved themselves, so there was no need to regulate the practice. That legislatures passed surety bond laws suggests that not everyone behaved themselves, so there was *some* regulation.

At ¶27:

Laws restricting the everyday use of firearms did appear, however, in the early national period in a number of slave states, where violence among citizens increased after the Revolution to extremely high levels. Revolutionary ideas and aspirations wreaked havoc on the status hierarchy of the slave South, where homicide rates ranged from 8 to 28 per 100,000 adults per year. Poor and middle-class whites were increasingly frustrated by their inability to rise in a society that remained class-bound and hierarchical.

Since Roth cites me as a source for part of this, I find it curious that he did not consider the evidence I found that this murder problem was an outgrowth of the backcountry honor culture, which was also the origin of the dueling problem that by Roth’s admission in the previous sentence was the target of Northern legislation. It was also the target of much Southern legislation and involved not just “Poor and middle-class whites” but people held back from legislative, judicial, and militia positions by “dueling oaths” requiring them to swear that they had not participated in a duel after a particular, often frequently changing date.¹⁷⁵

“The justices of the Louisiana Supreme Court echoed these sentiments—‘unmanly’ men carried concealed weapons to gain ‘secret advantages’ over their adversaries.” He cites his book

¹⁷⁵ Example: LAWS OF THE STATE OF INDIANA, PASSED AND PUBLISHED AT THE SECOND SESSION OF THE GENERAL ASSEMBLY 362-365 (1818).

instead of a Louisiana Supreme Court decision. And his book cites my book. Why not look up the decision itself?¹⁷⁶ This is not terribly persuasive evidence of scholarship.

At ¶31, Roth describes Georgia’s 1837 law “against the unwarrantable and too prevalent use of deadly weapons.” He then buries in a footnote that the law did not survive the Georgia Supreme Court. This seems like rather a big deal. While *Nunn v. State* upheld the concealed carry ban part of the law, the decision also ruled that: “The right of the whole people, old and young, men, women and boys, and not militia only, to keep and bear arms of every description, and not such, merely as are used by the militia, shall not be infringed, curtailed, or broken in upon, in the smallest degree...” This is a rather important point.

Roth recounts likely causes of changes in murder rates but makes no attempt to quantify relationships between these changes and murder rate changes. Many of his likely causes are not prone to quantification. Nonetheless, some are. If slavery drove high murder rates in the South, an obvious test would be to attempt to draw a correlation between slaves per 100,000 population by state, or even more ideally, by county. A perhaps more subtle measure might be what percentage of slave holders were “planters,” those holding 20 or more slaves. It is hard to take seriously claims about relationships of various factors to murder rates when not even this basic statistical analysis has been demonstrated.

D. From the Mexican War through the Early Twentieth Century

Roth opens ¶33 with a statement that is utterly false. “By the early twentieth century, every state either banned concealed firearms or placed severe restrictions on their possession.” No state banned concealed firearms, or even placed restrictions on possession. Concealed carry was heavily regulated. In the footnote he observes: “

¹⁷⁶ *State v. Chandler*, 5 La. An. 489, 490, 491 (1850).

These sources identify laws that either banned concealed firearms or placed severe restrictions on their possession in every state except Vermont. However, Vermont also had such a law by the early twentieth century. *See* An Act Against Carrying Concealed Weapons, No. 85, § 1 (12th Biennial Session, General Assembly of the State of Vermont, Nov. 19, 1892) (“A person who shall carry a dangerous or deadly weapon, openly or concealed, with the intent or avowed purpose of injuring a fellow man, shall, upon conviction thereof, be punished by a fine not exceeding two hundred dollars, or by imprisonment not exceeding two years, or both, in the discretion of the court.”).

What makes this claim in the footnote misleading is that the Vermont Supreme Court overturned a Rutland ordinance that banned concealed carry, while upholding the state law which required that the carrier did so “with the intent or avowed purpose of injuring a fellow man.” Without that criminal intent, the Court ruled, the Vermont Constitution’s right to keep and bear arms provision took precedence over a city ordinance.¹⁷⁷

Another misleading part of this claim is that some states passed concealed carry bans and then repealed them. California banned the carrying of concealed weapons in 1864.¹⁷⁸ It then repealed the law in 1870.¹⁷⁹ Newspapers that hailed the new law also hailed its repeal. The reason has some relevance to Roth’s claims. One editorial argued that the law:

bothers the good and assists the bad. It disarms the orderly citizen and places no obstruction in the way of the robber. Homicides were very common some years ago in California, and their frequency was partly due to the general custom among the miners of carrying revolvers and large knives. They were mostly single men, who would occasionally drink freely, and under the influence of strong liquor they did not hesitate to take life in case of a quarrel. But of late years, families have increased, dissipation has decreased, and drunken affrays are more rare. At the same time, robbery on the highway, and especially in this city, is more frequent.¹⁸⁰

Roth at ¶34 then observes that with respect to homicide:

But in the late 1840s and 1850s those rates exploded across the United States and spiked even higher during the Civil War and Reconstruction, not only in the South

¹⁷⁷ *State v. Rosenthal*, 75 Vt. 295, 55 A. 610 (1903).

¹⁷⁸ 1 GENERAL LAWS OF THE STATE OF CALIFORNIA, FROM 1850 TO 1864, INCLUSIVE 1585 (1870).

¹⁷⁹ California sess. Laws ch. 63 (1869-70).

¹⁸⁰ *The Carrying of Concealed Weapons*, DAILY ALTA CALIFORNIA, Mar. 13, 1869, 2.

and the Southwest, where rates had already risen in the early national period, but in the North.

Most curious people would ask which was the direction of causality between widespread passage of bans on concealed weapon carrying and a rising homicide rate. Both directions are plausible, if that editorial from the Daily Alta California is to be believed. It is apparent that Prof. Roth did not consider that possibility.

At ¶36: “Thus cap-and-ball revolvers, like muzzle-loaders, could not be loaded quickly, nor could they be kept loaded indefinitely without risk of damaging the charge or the gun. But they were deadlier than their predecessors, because they made it possible for a person to fire five or six shots in rapid succession.” Yes, there was evolution of firearms technology during the early Republic, but Colt’s important advances receive too much attention from Roth. From the late 18th century, gun makers made repeating handguns called pepper-boxes.

The flintlock firing mechanism made them prone to “chain fire” as flame from the first detonation would sometimes spread to the others, limiting their commercial value.¹⁸¹ The development of the percussion cap certainly made them more practical. While a percussion cap could certainly be detonated by flame, it was less likely than gunpowder in the pan of a flintlock mechanism.

Pepper-boxes used multiple barrels that usually required the user to rotate the barrel assembly for each shot; at least one ad from 1838 offers what (if accurately described) would have put it ahead of Colt’s early revolvers: “SELF-COCKING AND REVOLVING SIX BARREL

¹⁸¹ *Flintlock Pepperbox, Hand Rotated Four Barrel Cluster, .24-Claiber, Four Shot Unknown Maker, Likely Experimental, American, English or Continental Circa 1780-1820*, ANTIQUE ASSOCIATES, <https://www.aaawt.com/html/firearms/fl117.html>, last accessed March 8, 2023; *An Exceptional 88-Bore Flintlock Seven-Barrel Box-Lock Pepperbox Revolver By John Twigg, London, circa 1781-87*, Bonham’s, <https://www.bonhams.com/auction/26792/lot/348/an-exceptional-88-bore-flintlock-seven-barrel-box-lock-pepperbox-revolver/>, last accessed March 8, 2023;

POCKET PISTOL.... This pistol revolves the six barrels, cocks itself and discharges merely by pulling the trigger, placing a man with but one hand on an equality with six men, each with the ordinary pocket pistol.”¹⁸² Some transitional pepperboxes built to avoid infringing on the Colt patents fit this description (double-action trigger that also indexes the barrels).¹⁸³

While pepper-box pistols had a poor reputation for being more hazard to the shooter than the target, perhaps based on the necessarily dangerous flintlock method of firing, you can see examples of antique percussion pepperboxes being fired without any injuries or death to the shooter.¹⁸⁴

At ¶37: “Smith and Wesson’s seven-shot, .22 caliber, breech-loading, Model 1 rimfire revolver, invented in 1857, appeared on the market when the homicide crisis was already well underway.” Perhaps Roth should consider whether the homicide crisis was because of revolvers or was the homicide crisis the cause of revolver popularity. By his own admission in ¶35: “Concealable fighting knives, together with concealable percussion-cap pistols, remained the primary murder weapons.” The current issue with “assault weapons” and LCMs may be more a symptom of larger problems. If you do not address those root causes, you may only change the method of murder.

At ¶38: “Smith and Wesson had created a near-perfect murder weapon. It was lethal, reliable, easy to carry and conceal, capable of multiple shots, and ready to use at any time.” They had also created a near-perfect weapon of self-defense. That also describes the sidearm carried by every police officer and millions of law-abiding Americans. Roth has just admitted his biases.

¹⁸² *Self-Cocking and Revolving Six Barrel Pocket Pistol*, [Washington, D.C.] THE MADISONIAN, Dec. 22, 1838, 1.

¹⁸³ *English Transitional Pepperbox Revolver*, FORGOTTEN WEAPONS, <https://www.youtube.com/watch?v=w3MZJsnqy6E>, last accessed March 9, 2023.

¹⁸⁴ *Antique Pepperbox Pistol 1850's Washington Arms Co*, <https://www.youtube.com/watch?v=jiSkuUmKW5E>, last accessed March 9, 2023.

At ¶40: Easily concealed, [revolvers] became the weapons of choice for men who stalked and ambushed estranged spouses or romantic partners, for suspects who killed sheriffs, constables, or police officers, and for self-styled toughs who engaged in shootouts in bars, streets, and even churchyards.” Also, for estranged spouses or romantic partners, sheriffs, constables, or police officers, targets of self-styled toughs, and intended victims of mass murderers. “CHICAGO, Apr. 5. Two men were killed and three wounded today when a former employee of the W. A. Foundry & Machine Company walked into the offices of the concern and began firing with two pistols. He was then shot and killed by the plant superintendent, who opened fire in return.”¹⁸⁵

At ¶40, Roth tells us: “As modern, breech-loading firearms replaced the muzzle-loading and cap-and-ball gunstock from the late 1850s through World War I, the proportion of homicides committed with firearms continued to climb even when homicide rates fell for a short time, as they did at the end of Reconstruction.” Again, Roth’s insistence on including lawful defensive killings in “homicides” tells us nothing about whether this changing homicide rate was good or bad. If toughs, estranged lovers, or criminals using clubs or fists were the dead and the shooters were their intended victims, it could just as well explain “the proportion of homicides committed with firearms continued to climb even when homicide rates fell for a short time.” Roth’s data is interesting from an epidemiological standpoint but perhaps not useful for understanding murder.

¶40: “Ominously, too, firearms invaded families and intimate relationships, so relatives, spouses, and lovers were as likely to be killed with guns as unrelated adults—something that had never happened before in America’s history.” Since Roth has repeatedly shown us data on unrelated homicides for colonial America, he should show us some actual data on this change,

¹⁸⁵ “Former Employe[sic] Kills 2; Wounds 3,” Bisbee [Ariz.] Daily Review, Apr. 6, 1922, 1.

rather than just opening the sentence with “Ominously.” Certainly, there was no shortage of mass murders in families in this period using non-firearms. “Here are just a *few* examples: axes,¹⁸⁶ hammers,¹⁸⁷ knives,¹⁸⁸ poison,¹⁸⁹ drowning,¹⁹⁰ and strangling.¹⁹¹ I have hundreds more depressing examples.

Starting at ¶41, Roth reaches to laws passed after 1868, the cutoff line as far as *Bruen* is concerned.

Prof. Roth argues in ¶22 that the Founding Generation believed public safety threats “could be checked only by statutes that placed limits on basic rights.” I do not dispute this claim, but if Revolutionary standards are a basis for current laws, what will Prof. Roth’s response be to a 1792

¹⁸⁶ *Trial of Abel Clements*, [Richmond, Va.] *Virginia Argus*, Jul. 19, 1806, 2 (man murdered wife and eight children).

¹⁸⁷ *Murdered Her Children*, [Jonesboro, Tenn.] *HERALD AND TRIBUNE*, Jun. 11, 1874, 1 (Woman bashes her husband in the back of the head with a cooper’s adze (a specialized type of hammer), an injury expected to be eventually fatal. While seeking medical and police assistance, the woman beat to death her three children with an iron); *A Family Slain*, *KANSAS CITY JOURNAL*, Mar. 4, 1899, 1 (The missing father apparently beat to death his wife and their four children with a hammer.); *Insane Farmer Kills His Family*, Butler [Mo.] *Weekly Times*, Mar. 19, 1903, 7 (A farmer murdered his wife and six children with a sledgehammer then used it on himself); *Four Men Killed*, *SAVANNAH MORNING NEWS*, Aug. 18, 1903, 1 (Physician “[c]razed by drink” attacked his wife; when she returned he had beaten their three children to death with a claw hammer.)

¹⁸⁸ *Three murdered and a Suicide*, *MUSCATINE [IOWA] WEEKLY JOURNAL*, Jan. 11, 1861, 1 (Murderer, “after a social interview with some of his neighbors, which ended with singing and prayer” murdered his wife, a son, and a daughter with a knife.); *Shocking Murder in York County, Pennsylvania*, [Richmond, Va.] *DAILY DISPATCH*, Jun. 22, 1866, 1 (Robber murdered farmer George Squibb, his wife, and granddaughter with a knife.); *A Wife and Three Children Murdered by the Husband-Father*, *CAIRO [ILL.] EVENING BULLETIN*, Dec. 3, 1869, 1 (Man murders his wife and three children, cutting their throats.)

¹⁸⁹ *A Modern Borgia*, *NASHVILLE UNION AND AMERICAN*, Oct. 27, 1868, 1 (Servant girl poisons family of seven with Paris green, an arsenic rat poison.); *Families Poisoned*, [Austin, Minn.] *MOWER COUNTY TRANSCRIPT*, May 2, 1872, 1 (A boarder poisoned three of Mrs. Tibner’s children because Mrs. Tibner would not lend him \$1; he later confessed to his crime, and the murder of his wife and their child.); *A Shoemaker Named Geistlach...*, [Winsboro, S.C.] *NEWS AND HERALD*, Jun. 18, 1878, 1 (Mrs. Geistlach and her two children found dead from chloroform poisoning. Because she was illiterate, investigators considered her suicide note a forgery. Her husband, an out of work shoemaker, had disappeared, leading to suspicion that he was the actual killer.); *An Inhuman Step-Mother*, [Washington, D.C.] *EVENING STAR*, Jun. 15, 1869, 1; [Franklin, La.] *PLANTERS’ BANNER*, Sep. 1, 1869, 1 (Stepmother drowns three children from husband’s previous marriage out of jealousy. The river was only two feet deep, so she held them under “until life was extinct.”)

¹⁹⁰ *Caucasian Cruelty*, *ST. PAUL DAILY GLOBE*, Dec. 16, 1888, 1 (Man murders his wife and two children, drowning them with iron weights.); *Drowned Her Six Children*, *ADAMS COUNTY NEWS [Ritzville, Wash.]* Feb. 27, 1901, 4 (A woman threw her six children down a 30 foot deep well, “then jumped into the well, and, the belief is, held their heads under water until all were drowned.”)

¹⁹¹ *State Specials*, *DALLAS DAILY HERALD*, Apr. 16, 1881, 1 (Mrs. John Simmons, her four year-old son and her mother-in-law” were murdered. Mrs. Simmons had been “outraged” before the cutting of her throat; the mother-in-law strangled and the son murdered by dashing “the brains of his little son out upon the rocks.”)

“An act for the punishment of lewdness, adultery and polygamy?”¹⁹² Would New York State’s capital punishment of buggery¹⁹³ and Massachusetts’ “An Act Against Sodomy”¹⁹⁴ have a similar claim? Would the Pennsylvania Constitution 1776 provision:

And each member, before he takes his seat, shall make and subscribe the following declaration, viz:

I do believe in one God, the creator and governor of the universe, the rewarder of the good and the punisher of the wicked. And I do acknowledge the Scriptures of the Old and New Testament to be given by Divine inspiration.¹⁹⁵

If you intend to murder several people in a short period of time, an ax or a knife remains a sufficient weapon. They are cheap and silent. They draw no attention to your actions or provide warning to other potential victims.

E. Irrelevant Laws

Roth at ¶26-27 discusses the development of concealed weapon regulation, much of it directed at knives, and sometimes leaving firearms completely unregulated, such as Tennessee’s 1838 law.¹⁹⁶ If Roth’s point is that the early Republic found acceptable the regulation of concealed carry of deadly weapons, its relevance to possession or sale of LCMs and “assault weapons” (most of which would be concealable only by ten-foot-tall criminals), as is the objective of the New Jersey law, seems unclear.

¹⁹² *Laws of the State of New-Hampshire* 257-8 (1792).; Laurel Thatcher Ulrich, *A Midwife’s Tale: The Life of Martha Ballard, Based on her Diary, 1785-1812*, (New York, Random House, 1990), 291-307; Horrid Murder! At an early hour on Wednesday morning last, the inhabitants of this town were alarmed with the dreadful information..., (Augusta, Me., 1806), 1 (murdered his wife and seven of his eight children with an axe or knife); “Miscellaneous Clippings,” Wyandot [Ohio] Pioneer, Feb. 27, 1863, 2 (Woman murdered three stepchildren with an ax); “The Philadelphia Horror,” Chicago Tribune, Apr. 3, 1869, 2; “Horrible Murder,” [Irasburgh, Vt.] Orleans Independent Standard, Apr. 13, 1869, 3; “The Late Terrible Tragedy in Philadelphia,” [Washington, D.C.] Evening Star, Apr. 1, 1869, 1 (A man with ax murdered his wife and two children)

¹⁹³ 1 *Laws of the State of New-York* 336 (1792).

¹⁹⁴ *Perpetual Laws of the Commonwealth of Massachusetts* 187 (1789).

¹⁹⁵ Pennsylvania Const. § 10 (1776).

¹⁹⁶ *Acts Passed at the First Session of the Twenty-Second General Assembly of the State of Tennessee: 1837-8* ch. 137 at 200-201 (1838),

Even conceding antebellum constitutionality of regulation of concealed carry, the Tennessee Supreme Court decision upholding the 1838 concealed knife law has something to say about “weapons of war”:

To make this view of the case still more clear, we may remark, that the phrase, "*bear arms*," is used in the Kentucky constitution as well as in our own, and implies, as has already been suggested, their military use. The *28th section of our bill of rights* provides, "that no citizen of this State shall be compelled to *bear arms*, provided he will pay in equivalent, to be ascertained by law." Here we know that the phrase has a military sense, and no other; and we must infer that it is used in the same sense in the *26th section*, which secures to the citizen the *right to bear arms*. A man in the pursuit of deer, elk and buffaloes, might carry his rifle every day, for forty years, and, yet, it would never be said of him, that he had *borne arms*, much less could it be said, that a private citizen *bears arms*, because he has a dirk or pistol concealed under his clothes, or a spear in a cane. So that, with deference, we think the argument of the court in the case referred to, even upon the question it has debated, is defective and inconclusive.¹⁹⁷

If only military arms are protected, then these weapons that we are told are “weapons of war,” must be protected arms. This must be what that James Madison, author of the Second Amendment, meant when in Federalist 46 he wrote about the potential danger of a tyrannical national government:

Let a regular army, fully equal to the resources of the country, be formed; and let it be entirely at the devotion of the federal government; still it would not be going too far to say, that the State governments, with the people on their side, would be able to repel the danger. The highest number to which, according to the best computation, a standing army can be carried in any country, does not exceed one hundredth part of the whole number of souls; or one twenty-fifth part of the number able to bear arms. This proportion would not yield, in the United States, an army of more than twenty-five or thirty thousand men. To these would be opposed a militia amounting to near half a million of citizens with arms in their hands,...

Roth speaks approvingly of *Nunn v. State* (Ga. 1846) and its acceptance of concealed carry regulation but misses its important protection for arms possession and carry:

The right of the whole people, old and young, men, women and boys, and not militia only, to keep and bear arms of every description, and not such merely as are used

¹⁹⁷ *Aymette v. State*, 21 Tenn. (2 Hump.) 154, 161 (1840)/

by the militia, shall not be infringed, curtailed, or broken in upon, in the smallest degree; and all of this for the important end to be attained: the rearing up and qualifying a well-regulated militia, so vitally necessary to the security of a free State. Our opinion is, that any law, State or Federal, is repugnant to the Constitution, and void, which contravenes this right, originally belonging to our forefathers, trampled under foot by Charles I. and his two wicked sons and successors, reestablished by the revolution of 1688, conveyed to this land of liberty by the colonists, and finally incorporated conspicuously in our own Magna Charta! And Lexington, Concord, Camden, River Raisin, Sandusky, and the laurel-crowned field of New Orleans, plead eloquently for this interpretation!¹⁹⁸

Also Roth refers to “prohibitions against carrying certain concealable weapons...” It was only if the weapons were *concealed*, not concealable. A pistol or Bowie knife might well be concealable, but if openly carried, it was still lawful. Tennessee prohibited sale of fighting knives and concealed carry, but open carry remained lawful with an added penalty if the bearer injured another party with no apparent requirement that the knife be concealed.¹⁹⁹

¶27 Roth asserts that in the 1830s several states “passed laws ... that restricted the use or ownership of certain types of weapons.” I can find no laws restricting ownership, only prohibitions on concealed carry with sentence enhancements for criminal use while carrying openly (Texas,²⁰⁰ Tennessee²⁰¹). Many of these statutes prohibited or taxed prohibitively the sale or transfer of such weapons (Alabama,²⁰² Georgia,²⁰³ Tennessee.²⁰⁴) without prohibiting ownership.

At ¶28 n. 55, Roth informs us that “These sources identify laws that either banned concealed firearms or placed severe restrictions on their possession in every state except Vermont. However, Vermont also had such a law by the early twentieth century. *See An Act Against*

¹⁹⁸ *Nunn v. State*, 1 Ga. 243, 250, 251 (1846).

¹⁹⁹ 1838 Tenn. Ch. 137 § 4.

²⁰⁰ See *Cockrum v. State*, 24 Tex. 394, 402 (1859).

²⁰¹ 1838 Tenn. Ch. 137 § 4.

²⁰² 1837 Ala. Ch. 11, § 2.

²⁰³ *Acts of the General Assembly of the State of Georgia Passed in Milledgeville at an Annual Session in November and December, 1837* (Milledgeville: P. L. Robinson, 1838), 90-91 § 1.

²⁰⁴ 1838 Tenn. Ch. 137 § 1.

Carrying Concealed Weapons, No. 85, § 1 (12th Biennial Session, General Assembly of the State of Vermont, Nov. 19, 1892).”

An Andrew Rosenthal was convicted in Rutland City Court of violating city ordinance No. 10, “prohibiting a person from carrying within the city any brass knuckles, pistol, slung shot, or weapon of similar character, or any weapon concealed on his person, without permission of the mayor or chief of police,” though in what way, and with what arms, is not told by the headnotes or the decision. The Vermont Supreme Court struck down the ordinance based on the Vermont Constitution “art. 16, [which] declares that the people have a right to bear arms for the defense of themselves and the state,” and that the ordinance in question “so far as it relates to the carrying of a pistol under any circumstances without such consent, is repugnant to the Constitution, and to that extent void.”

Vermont Statutes §4922 prohibited the carrying of arms, “with the intent or avowed purpose of injuring a fellow man”:

Under the general laws, therefore, a person not a member of a school may carry a dangerous or deadly weapon, openly or concealed, unless he does it with the intent or avowed purpose of injuring another; and a person who is a member of a school, but not in attendance upon it, is at liberty, in a similar way, to carry such weapons.²⁰⁵

The Court pointed out that the Rutland ordinance banned any carrying of a weapon concealed, whether a criminal intent was present or not, and was therefore contrary to the “Constitution and the general laws of the state.” The Court emphasized that while other parts of the Rutland ordinance might be also invalid, these were “questions not now before the court.”²⁰⁶

²⁰⁵ *State v. Rosenthal*, 75 Vt. 295, 55 Atl. 610, 611 (1903).

²⁰⁶ *Id.*

Roth at ¶28, informs us that “the invention of new firearms, especially the revolver, which enabled the firing of multiple rounds in succession without reloading and made the homicide problem worse.” This is a strong assertion, in desperate need of evidence. The only sources listed are Roth and a paper co-authored by Roth about Old West Homicide rates, which paper makes no reference to revolvers, Colt, pistol, or handgun.²⁰⁷ Referencing your own claims is unpersuasive.

Because Colt production for the commercial market started in 1848,²⁰⁸ with the apparent swarm of murder rate data in Roth’s possession, one might expect a table showing the steady rise in murder rates starting in 1848. Where is it? This increase in production was not subtle and should be considered cumulative in its effects; firearms are quite durable. This page from the Colt factory shows an order by *one* distributor for 200 7-shot revolvers per week:

²⁰⁷ Randolph Roth, Michael D. Maltz, and Douglas L. Eckberg, “Homicide Rates in the Old West,” *Western Historical Quarterly* 42 (2011): 173-195.

²⁰⁸ David A. Hounshell, *From the American System to Mass Production 1800-1932: The Development of Manufacturing Technology in the United States* 47 (1984).

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62 673. Hartford Conn Dec. 31. 1874
Messrs Schuyler Hartley & Graham
1760 New York.
Gentlemen

Your favor of the 29th inst
came to hand this AM. and in reply would say
that the stock of new Docket that we have on hand
and in the works cannot exceed 2000 Pistols of these
about 1500 are finished. The remainder are in the
works, of those on hand there are about an equal
quantity of $4\frac{1}{2}$, $5\frac{1}{2}$ and $6\frac{1}{2}$ inch. In altering
them over into Breach Loaders we could make them
all $4\frac{1}{2}$ inch if desired. We will let the "Allies" have
them as they are (O & B) at 4^{th} Ea net or we will
alter them into Breach Loaders at 5^{th} Ea net.
It would require about 60 days to alter 12 to 1500.
We are prepared to act on the 38 & 41 cal's when we
hear or receive any encouragement from the Allies
and as stated to Mr Moore when in Hartford.
With the compliments of the season. We remain,
Yours truly,
(Signed) Hugh Harrison Treas.

At ¶34, Roth claims:

By the eve of World War I, rates had fallen in the New England states to 1 to 4 per 100,000 adults per year, to 2 to 5 per 100,000 in the Prairie states, and 3 to 8 per 100,000 in the industrial states. In the West, rates had fallen to 12 per 100,000 adults per year in California, 15 per 100,000 in Colorado, and approximately 20 to 30 per 100,000 in Arizona, Nevada, and New Mexico. Homicide rates whipsawed, however, in the South. They fell in the late 1870s and 1880s, only to rise in the 1890s and early twentieth century, to just under 20 per 100,000 adults in Florida, Kentucky, Louisiana, Missouri, and Tennessee, and 35 per 100,000 in Virginia and North Carolina.

With all these advanced technology firearms on the market and cumulatively in private hands, it seems odd that murder rates fell in most of the country while rising in the South. Perhaps it was not the firearms, but the social upheaval of the end of Reconstruction and the rise of Jim Crow that caused increasing murder rates there? Having grabbed onto his preference for blaming revolvers, he suddenly loses interest in the larger social changes that were heavily concentrated in the one region where murder rates were rising. Worse for Roth's argument, in ¶35-36, he recounts how Texas, Tennessee, and Arkansas adopted increasingly strict gun carrying laws over the period in which he tells us murder rates were rising in the South. Somehow more revolvers caused more murders in the gun control leading South but the opposite in the rest of America.

After describing how California repealed its ban on concealed carrying of weapons, he asserts that "public sentiment veered back toward the belief that the effort to make California less violent was hopeless, and that the only protection law-abiding citizens could hope for was to arm themselves." Roth cites an article on which I was co-author but somehow missed the quote from one of the newspapers that applauded the repeal:

Homicides were very common some years ago in California, and their frequency was partly due to the general custom among the miners of carrying revolvers and large knives. They were mostly single men, who would occasionally drink freely, and under the influence of strong liquor they did not hesitate to take life in case of a quarrel. *But of late years, families have increased, dissipation has decreased, and*

drunken affrays are more rare. At the same time, robbery on the highway, and especially in this city, is more frequent.²¹⁰ [emphasis added]

California had become less violent because of demographic changes and only seemed to need armed citizens to discourage robbery.

More evidence that Roth is not reading carefully is ¶45 n. 95:

Note that the title of the Cramer and Olson essay is misleading. It does not refer to the origins of the laws discussed here or to the ways in which they were enforced. It refers instead to an unsuccessful effort in 1878 and a successful effort in 1923 to deny resident aliens the right to bear arms.

Yet his source for the “laws discussed here” is the paper that “does not refer to the origins of the laws discussed here...” Somehow he missed “C.California’s First Concealed Weapon Law,” and “A.California’s Second Concealed Weapon Law & Pancho Villa,” and “B.California’s Third Concealed Weapon Law.”

F. Roth’s Irrelevant Technical Errors

At ¶58, Roth goes into a technical discussion of the M-16 and compares it to the ArmaLite [*sic*] AR-15 as “the civilian version of the M-16.” While many parts are common between the two weapons, and a few intentionally incompatible, the most relevant aspects are the cartridge and speed of fire. While 3,300 feet per second suggests an enormously powerful bullet, it is less powerful than many common hunting rifles. The muzzle energy of the metal case 55 grain cartridge is 1,282 foot-pounds. The widely used for hunting .308 Winchester is 2,648 foot-pounds. Both are quite lethal, but the .308 Winchester is more destructive at 200 yards than the .223 Remington at the muzzle.²¹¹ If the speed or power of the AR-15’s cartridge is relevant, it is a

²¹⁰ *The Carrying of Concealed Weapons*, DAILY ALTA (SAN FRANCISCO) CALIFORNIA 2 Mar. 13, 1869.

²¹¹ Sportsman’s Guide, *Rifle Ballistics Charts*, <https://www.sportsmansguide.com/ballisticscharts/rifle>, last accessed February 6, 2023.

reminder that a hunting rifle expertly fired is quite deadly. The mass murderer at the University of Texas in 1966 murdered fourteen people.²¹² He was a skilled marksman using a very traditional hunting rifle: a Remington 700. He also had two more rifles, a shotgun, and three pistols with him.²¹³

A shortage of LCMs can always be solved by carrying more guns. Two examples: The mass murderer at ESL in Sunnyvale in 1988 arrived at the scene carrying “three handguns, including 9mm Browning semiautomatic pistol and a .380-cal. semiautomatic pistol, a .30-06 high-powered rifle and a 12-gauge shotgun -- the weapon used in all the killings.”²¹⁴ The .30-06 is a standard hunting rifle caliber; I doubt that it used detachable magazines.

In 1913, a former teacher showed up at a Bremen, Germany, Catholic school “armed with six loaded revolvers.” He killed one teacher, two children, “three children were gravely injured and three other children were slightly wounded.” The article described him as “demented.”²¹⁵ Depending on whether they were they were 5-shot, 6-shot, or 9-shot revolvers (all still common today) he could have fired 30, 36, or 54 shots without reloading.

At ¶62:

Just as dangerous, however, were modifications that helped users fire more rapidly with semiautomatic firearms. The modifications included “fixes” as simple as stretching a rubber band from the trigger to the trigger guard of an AR-15—the civilian version of the M-16, which differs from the military model only in its lack of a switch for fully automatic.

²¹² Charles Bowden, *The Men Who Stopped a Mass Murderer*, Esquire, Aug. 26, 2021, <https://www.esquire.com/news-politics/a36890935/charles-whitman-mass-shooting-university-of-texas/>, last accessed February 6, 2023.

²¹³ Craig Hlavaty, *Rifle Reported To Be Used In Charles Whitman Killing Spree Up For Sale*, *Houston Chronicle*, Sep. 24, 2014, <https://www.chron.com/news/houston-texas/texas/article/Rifle-reported-to-be-used-in-Charles-Whitman-5777479.php>, last accessed February 6, 2023.

²¹⁴ Jay Mathews, *Sudden Death In Sunnyvale*, *Washington Post*, Feb. 18, 1988.

²¹⁵ *Maniac Shot Many People*, BARRE [VT.] DAILY TIMES, Jun. 20, 1913, 1.

There are differences in other parts: hammers, bolt carrier, and lower receiver. If Roth is trying to suggest that there is some easy conversion between the two weapons, see 26 USC § 5845(b).²¹⁶ Any parts collection capable of that conversion is *already* a machine gun.

The rubber band pushes the trigger forward more rapidly after each round and enables users to fire rapid semiautomatic bursts with help of the weapon's natural recoil. There is nothing specific to the AR-15 or any other "assault weapon" about this; it works on any semiautomatic firearm. New Jersey by refusing to ban all semiautomatic firearms demonstrates that this is a cosmetic law that can be easily defeated. "The rubber band method works because manufacturers have increased the fire rate of semiautomatic weapons by decreasing the pressure it takes to pull the trigger." The cited source makes no such claim. Firearm manufactures engage in a continual battle between lighter triggers to improve accuracy and safety requirements to avoid unintentional firing. The idea that firearms manufacturers are intentionally reducing trigger pull to facilitate the rubber band solution is in need of evidence. Curiously, BATF has already made possession of a shoelace and a semiautomatic weapon (even if not an "assault weapon" into a felony.²¹⁷

¶67: "What is remarkable about the mass shootings that have plagued the United States since 1965 is that all but four involved a lone shooter, and those that have involved more than one assailant have involved only two." My research has involved mass *murders*, not just mass *shootings*. (I consider mass murder a bad thing, not just when committed with firearms.) This includes a number of mass murders since 1965 with very high death counts.

New Orleans, La. (1973)

²¹⁶ *Full Auto vs Semi Auto AR15 Bolt Carrier Group Comparison*, https://www.youtube.com/watch?v=MO3LWqaw_Wg&t=53s, last accessed February 6, 2023.

²¹⁷ See Bureau of Alcohol, Tobacco, and Firearms letter, Sep. 30, 2004, <https://claytoncramer.com/ATF-shoestring-machine-gun-2004.jpg>, last accessed February 6, 2023.

06/24/1973: The murderer took revenge for being expelled from the UpStairs Lounge, a gay bar. He walked down the street and bought a bottle of cigarette lighter fluid, killing 33 people.²¹⁸

Los Angeles, Cal. (1987)

12/7/1987: The airline fired passenger agent for theft; he used his employee ID to smuggle a gun on board, murdered his former supervisor, then killed the flight crew. He crashed the airliner crashes; killing 45. He blamed his lack of promotion on racism.²¹⁹

San Juan, P.R. (1986)

12/31/1986: Three Teamsters attempted to negotiate a better labor contract with their employer by setting a fire that murdered 97 people.²²⁰

New York, N.Y. (1990)

3/25/1990: Angry at his girlfriend, the murderer used \$1 of gasoline and a match to set fire to her place of employment, murdering 87 people, leaving three survivors.²²¹

Oklahoma City, Okla. (1995)

4/19/1995: The murderer set off a bomb in front of the federal building killing 168 people and injuring hundreds more. This was retaliation for the 1993 deaths of dozens at the Branch Davidian compound that the murderer blamed on criminal behavior by the federal government.²²²

New York, N.Y. (2001)

²¹⁸ Elisabeth Dias with Jim Down, *The Horror Upstairs*, *Time*, Jul. 1, 2013.

²¹⁹ Judith Cummings, *Kin of Suspect Defiant and Contrite*, *New York Times*, Dec. 11, 1987.

²²⁰ 3 Teamsters Charged in San Juan Hotel Fire, *Chicago Tribune*, Feb. 4, 1988, <https://www.chicagotribune.com/news/ct-xpm-1988-02-04-8803270617-story.html>, last accessed November 24, 2018.

²²¹ Ralph Blumenthal, *Fire in the Bronx; 87 Die in Blaze at Illegal Club; Police Arrest Ejected Patron; Worst New York Fire Since 1911*, *New York Times*, Mar. 26, 1990.

²²² Flowers and Flowers, *Murders in the United States*, 56-7.

9/11/2001: Terrorists fly two commercial airliners into the World Trade Center killing 3047 people, wounding far more and plunging the U.S. into war.²²³

Arlington Co., Va. (2001)

9/11/2001: Same terrorist group flies an airliner into the Pentagon killing 184 people and wounding far more.²²⁴

Somerset Co., PA (2001)

9/11/2001: Same terrorist group fights for control of an airliner against determined and courageous crew and passengers, crashing the plane into the ground before reaching their D.C. target. Forty people murdered.²²⁵

Roth's claim that recent mass *shootings* never involve more than two is *mostly* correct. One recent group mass *shooting* took place on Oct. 31, 2019, in Orinda, Cal. A conflict between gangs led to a shooting in which the murderers shot to death five people and "several others were injured."²²⁶ Mass *murders*, however, often involve larger groups such as those aforementioned.

G. Mass Murder: My Current Research Project

1. Defining Mass Murder

Since 2019, I have been researching the history of mass murder in the United States. The definition of mass murder does not have a universal definition. The FBI's definition of mass murder is four or more dead (including the killer) in one event, in one location.²²⁷ Other agencies,

²²³ FBI, Crime in the United States: 2001, Section 5, <https://ucr.fbi.gov/crime-in-the-u.s/2001/01sec5.pdf>

²²⁴ FBI, Crime in the United States: 2001, Section 5, <https://ucr.fbi.gov/crime-in-the-u.s/2001/01sec5.pdf>

²²⁵ FBI, Crime in the United States: 2001, Section 5, <https://ucr.fbi.gov/crime-in-the-u.s/2001/01sec5.pdf>

²²⁶ Annie Sciacca, 'It Was A Bloodbath': Orinda Halloween Shooting Investigation Reveals Gang Connections, San Jose Mercury-News, Nov. 17, 2019.

²²⁷ FBI, Serial Murder: Multidisciplinary Perspectives for Investigators 8 (2008), distinguishing mass murder from serial murderers. "Generally, mass murder was described as a number of murders (four or more) occurring during the same incident, with no distinctive time period between the murders."

such as the U.S. Secret Service use the term “mass attacks” in which “three or more people are harmed.”²²⁸

For my research, I have adapted the Secret Service’s definition. For purposes of this research, I slightly extended the FBI definition to include at least two murder victims committed in multiple locations within 24 hours and use the Secret Service’s “three or more people harmed.” The suicide or lawful killing of the mass murderer or murderers is not included in the total dead.

A more widely used definition of mass murder is four or more killed, making comparison with FBI and Secret Service data a bit more difficult. Throughout this report, I will provide information using both definitions.

I have excluded multiday mass murders committed in riots, such as the New York City Draft Riots of 1863, and many of the race riots of the 20th century because they were not in one location. Determining when these murders took place precludes easy classification. I also have excluded crimes such as the Colorado cannibalism murders in 1874, because it is unclear over what period the victims were murdered.

There are deaths that might qualify as mass murder, but which have circumstances that might also qualify as lawful self-defense and are thus not included.²²⁹ There are mass murders that appear to be gang-related; I have excluded many of those because determining if they were defensive in nature or not requires confidence in the integrity of the participants, who often have reason to lie.

Obviously, mass murder does not include acts of war. Mass murders committed by governments as official policy are outside the legal definition of murder. Other horrifying mass

²²⁸ U.S. Secret Service, *Mass Attacks in Public Spaces* – 2019, 6 (August, 2020).

²²⁹ *Renewal of Mob Attacks Resulting in 3 Deaths and 13 Injured on Second Day of Lawlessness Causes Governor to Act*, GREAT FALLS [MONT.] DAILY TRIBUNE, Aug. 7, 1920, at 1.

killings outside our definition include those performed by non-state actors with the acquiescence, assistance, or encouragement of local, regional, or national governments. Some mass murders were not official acts but were assisted by governmental disarming of the victims. Example: the East St. Louis race riot of 1916, where police and state militia disarmed blacks in advance of a non-governmental mass murder.

East St. Louis, Ill. (1916)

7/7/1916: “Cowardly Police and Militia Search Negroe’s [sic] Homes, Disarm Them, and Then Turn Them Over to the Blood-Thirsty Demons Clamoring For Their Lives. Without Arms or Protection 38 are Killed, More Than 200 Wounded and 325 Negro Homes are Burned and Looted.”²³⁰ “I killed seventeen last night,” he said, grinning as he shifted an ax he was carrying from one hand to the other. “And I am going to get a few more if I get a chance.”²³¹

Category: public.

Suicide: No

Cause: Racism

Weapon: at least 17 by ax.²³²

Also excluded are governmentally supported acts of mass murder committed outside the rules of land warfare. The bombing of the Soo Locks on the Great Lakes shortly after U.S. entry into World War I, which would otherwise meet the criteria of mass murder, smells suspiciously like German sabotage and I therefore excluded it.²³³ This also excludes one of the earliest American mass murders: ten murdered by Lenape Indians at a school in 1764 Greencastle,

²³⁰ “Fiends Incarnate!” *Kansas City Sun*, Jul. 7, 1917, 1.

²³¹ “Listen, Men!” *Kansas City Sun*, Jul. 7, 1917, 1.

²³² “Fiends Incarnate!” *Kansas City Sun*, Jul. 7, 1917, 1.

²³³ *Attempt Made To Wreck Soo Locks*, *EAST OREGONIAN*, May 16, 1917, 1.

Pennsylvania,²³⁴ as well as the many thousands (at least) killed in various Indian wars (such as the hundreds killed during the Dakota War of 1862).

I have excluded *most* mass murders of Indians by Indians because most were outside the civil society of America, and the records of such crimes are thus necessarily incomplete. The Criminal Justice Research Center's data on Colonial and Revolutionary New England murders contains examples of Indian mass murders for which we have data and I have included these.²³⁵ I have included incidents here where a mass murder (by white or Indian and regardless of the victim's race) was clearly *not* a part of warfare, such as those motivated by robbery or kidnapping with the goal of ransom.

There are mass murders where the victim count includes people killed because a felony was taking place. Because of the felony-murder rule, I have included people killed lawfully during a felony as mass murder victims, such as happened in the Johnson County War.²³⁶ I have excluded incidents in which all the dead were felons.²³⁷

There are incidents which might be best categorized as mutual combat, where armed groups attacked each other with great loss of life but determining who were the victims and who were the murderers is not easy from surviving news coverage, such as the struggle between Democratic and Republican campaign workers in Clayhole Voting Precinct in 1922. The ensuing gunfight killed at least five people and wounded ten to thirteen others.²³⁸

²³⁴ Robert J. Ursano, Carol S. Fullerton, Lars Weisaeth, Beverley Raphael, ed., *TEXTBOOK OF DISASTER PSYCHIATRY* 204 (2nd ed. 2017).

²³⁵ Criminal Justice Research Center, *Homicide Among Adults in Colonial and Revolutionary New England, 1630-1797*, <https://cjrc.osu.edu/research/interdisciplinary/hvd/united-states/colonial-revolutionary-new-england>.

²³⁶ *A War in Wyoming*, [Maysville, Ky.] *Evening Bulletin*, Apr. 13, 1892, 1.

²³⁷ *Nevada Mining Boss Besieged in His Office*, *Kalispell Bee*, Jan. 09, 1903, 1.

²³⁸ Some Facts About Clayhole, [Lancaster, Ky.] *Central Record*, Jul. 20, 1922, 1.

I have excluded a small number of cases where trial found the killer not guilty of what were clearly mass murders. Example: Miss Verna Ware opened fire in the Gatesville courthouse in 1909, killing the man she accused of seducing her, two others not involved in the case and wounding a fourth.²³⁹

2. Finding Mass Murders

How do you find historical mass murders? The phrase “mass murder” is quite rare in historical documents. Using the *ngram* tool in books.google.com for books published 1600-2000 shows essentially zero matches until 1952,²⁴⁰ and many of the rare pre-1952 matches are actually abbreviations of Massachusetts such as “Mass. Murder” or “Mass., murder.”²⁴¹ The abbreviation “Mass.” causes similar problems when searching the Library of Congress’ collection of 1789-1963 newspapers for the words “mass” and “murder” within five words of each other.²⁴² An additional problem is the use of the phrase to describe governmentally sanctioned and indeed government-operated warfare.²⁴³

Searching the Library of Congress’ *Chronicling America* collection of newspapers for the words “murders”, “murdered”, “killed”, “slain”, “dead” in association with numbers found a sea

²³⁹ *Woman to Face Murder Charge, Waxahachie [Tex.] Daily Light*, Feb. 8, 1909, 1; *Four People Wounded, Palestine [Tex.] Daily Herald*, Feb. 4, 1909, 2; *Jury Verdict Not Guilty, Liberty [Tex.] Vindicator*, Feb. 11, 1910, 1.

²⁴⁰ https://books.google.com/ngrams/graph?content=%27mass+murder%27&year_start=1600&year_end=2000&corpus=17&smoothing=3&share=&direct_url=t1%3B%2C%27%20mass%20murder%20%27%3B%2Cc0, last accessed June 12, 2018.

²⁴¹ Examples: Michigan State Prison, *Biennial Report of the Board of Control and Officers of the State House of Correction and Branch Prison in Upper Peninsula...* 22, 41, 65 (1916); R.W. Bligh, comp., *New York Herald Almanac: Financial, Commercial and Political Register 1874 87* (1874).

²⁴² <https://chroniclingamerica.loc.gov/search/pages/results/?state=&dateFilterType=yearRange&date1=1789&date2=1963&language=&ortext=&andtext=&phrasertext=&proxtext=mass+murder&proxdistance=5&rows=20&searchType=advanced>; Examples: ‘Joe is a Good Boy,’ Declares Ettor’s Parents, [Chicago, Ill.] *The Day Book*, Oct. 25, 1912, 14; *Queries Pour in on J. Frank Hickey*, [Chicago, Ill.] *The Day Book*, Dec. 4, 1912, 28; *Written Authority to Walk in Your Own Town*, [Chicago, Ill.] *The Day Book*, Feb. 5, 1912.

²⁴³ Jos. Veltman, *Do Workers Want War?* [letter to the editor] [Chicago, Ill.] *The Day Book*, Jan. 17, 1916, 23.

of matches, most of which needed to be read before discarding. In many cases, similar or identical news stories appeared in multiple newspapers. If the same facts appeared repeatedly, and there were hundreds of references to an event, I did not read every newspaper account of that event.

There are several frustrating limitations of the *Chronicling America* collection:

1. Copyright restrictions make post-1922 newspaper collections incomplete.
2. Many of these mass murders, in addition to appearing in many different newspapers, sometimes appear in only one or two newspapers, far removed from the crime, both geographically and temporally. One example is a mass murder of three in Tamworth, N.H. in 1857 which appeared only in an 1858 summary of the previous year's events, which was published in Pennsylvania.²⁴⁴ This made it difficult to gather additional data on the crime.
3. Nineteenth century accounts often used the word "murders" rather far afield from its legal meaning, or in reference to general social problems such as alcohol. This produced so many thousands of matches that I have often settled for detailed examination of the first 100 front page news stories. Newspapers in the nineteenth century also published many foreign news accounts and fiction. Limiting searches to the front pages thus reduced false positives which would have to be laboriously examined for location and fiction status. (If it didn't make the front page, it seems unlikely it could be either a specific crime, or something as shocking as a mass murder.)

Defining a mass murder by the number of dead can understate mass murders, if either police or civilian intervention interrupts the murderer. (There are some examples in my list of mass murders cut short, although not short enough, by such actions.) In addition, some of the events gathered here list crimes in which the immediate coverage includes persons wounded so seriously that the coverage describes them as "probably fatally."²⁴⁵ When considering the nature of medical and surgical care available until my lifetime, it seems a good guess that those described as "probably fatally" wounded can be properly included among the dead.

One limitation of my research project is that, as my father used to tell me, "Newspapers are the first draft of history." They may miss mass murders because of location, loss of newspapers

²⁴⁴ *Principal Events of General and Local Interest During the Year 1857*, Lewiston [Penn.] Gazette, Jan. 21, 1858, 1.

²⁴⁵ *Maniacal Unknown in Attempt to Exterminate Whole Family*, Bisbee [Ariz.] Daily Review, Apr. 6, 1922, 1.

from the historical record, and sometimes intentional editorial refusal to cover barbarous behavior (which has been demonstrated to promote copycat mass murders, even to the choice of manufacturer of the weapon used).²⁴⁶

There is a well-established pattern of copycat crimes inspired by news coverage. One example: An 1887 murder (although with only two victims and thus not in the database) was unmistakably a copycat of a recently reported mass murder. A mechanic read an article about a mass murder committed in part with Rough on Rats, a poison,²⁴⁷ to his wife:

His wife listened to the account of the... murder and then bade her husband read it. He went over it a third time and then she took the paper to the neighbors and had it read twice more. Thursday she sent her mother for yeast, and took a heavy dose of Rough on Rats and forced a dose of the poison down the throat of her babe.... The woman died in great agony and her babe expired soon after.²⁴⁸

Along with *Chronicling America*, I have made extensive use of the commercial site *Newspapers.com* and a few secondary sources.

Another valuable source was the list of “Homicide among Adults in Colonial and Revolutionary New England, 1630-1797,” compiled by Randolph Roth and Cornelia Hughes Dayton.²⁴⁹ While this is a list of *all* murders, not just mass murders, it provided an additional source of incidents.

3. Group Activity

Roth’s claim at ¶15 is that before modern firearms technology, mass murder “because of the limitations of existing technologies, were carried out by large groups of individuals acting in

²⁴⁶ Clayton E. Cramer, *Ethical Problems of Mass Murder Coverage in the Mass Media*, 9:1 *Journal of Mass Media Ethics* 26-42 (Winter, 1993-94).

²⁴⁷ “A Maniac Mother,” *St. Paul Daily Globe*, Apr. 24, 1886, 1.

²⁴⁸ “Rough on Rats,” *Austin Weekly Statesman*, Feb. 3, 1887, 7.

²⁴⁹ Randolph Roth and Cornelia Hughes Dayton, comp., *Homicide among Adults in Colonial and Revolutionary New England, 1630-1797*, Oct. 2009, <https://cjrc.osu.edu/research/interdisciplinary/hvd/united-states/colonial-revolutionary-new-england>, last accessed June 12, 2018.

concert, rather than by individuals or small groups.” The supposed distinction between modern individual mass murder and group mass murder of earlier centuries does not stand careful examination. Mass murder is *still* sometimes a group activity. Such happened at Littleton, Colo. on Apr. 20, 1999²⁵⁰ and the terrorist attacks of September 11, 2001. Other recent group mass murders include one on Oct. 31, 2019, in Orinda, Cal. A conflict between gangs led to a shooting in which the murderers shot to death five people and “several others were injured.”²⁵¹ On Dec. 31, 1986, in San Juan, P.R. three Teamsters attempted to negotiate a better labor contract with their employer by setting a fire that murdered 97 people.²⁵²

Before 1961, when “assault weapons” and LCMs were rare, there were 216 non-firearms incidents with four or more dead and a single murderer for a total of 1,353 dead or 6.26/incident. With firearms only, there were 172 incidents with 825 dead or 4.80/incident.

As this report later shows, individual mass murder is neither particularly modern nor dependent on technological advances.

4. Data Limitations

It would be very useful to be able to extract data identifying which were group mass murders and which were individual. When I started this project, this seemed an unnecessary detail and so I did not gather it. I have since gone back and coded mass murder incidents based on whether they were committed by an individual or a group. In some cases, it is impossible to

²⁵⁰ R. Barri Flowers and H. Loraine Flowers, *Murders in the United States: Crimes, Killers and Victims of the Twentieth Century* 59 (2001).

²⁵¹ Annie Sciacca, “It was a bloodbath”: Orinda Halloween shooting investigation reveals gang connections, *San Jose Mercury-News*, Nov. 17, 2019.

²⁵² 3 Teamsters Charged in San Juan Hotel Fire, *Chicago Tribune*, Feb. 4, 1988, <https://www.chicagotribune.com/news/ct-xpm-1988-02-04-8803270617-story.html>, last accessed November 24, 2018.

determine this. Often news accounts, confessions, or suicide notes clearly identify that this was the act of an individual. In some cases, there is ambiguity, such as train derailments.

When gathering this data, I only recorded if a particular weapon was used rather than counting deaths by weapon. In older news accounts, there is no breakdown of deaths by weapon. In many cases, the state of forensic medicine would make it impossible to determine if the ax to the head or the subsequent knife to the throat was the fatal injury. It would make little difference which caused a victim's death: the murderer's punishment would be the same.

A few examples of mass murders when firearms technology was not used:

Clarksburg, Va.: Nov. 10, 1805: Man murdered his wife and eight children. While found guilty, there was substantial evidence of mental illness. Weapon: ax.²⁵³

Hallowell, Me.: Jul. 9, 1806, The father murdered his wife and seven of his eight children with an axe or knife before killing himself with a knife. The cause was unclear, but the murderer mentioned poverty in a suicide note. Weapon: ax.²⁵⁴

Uniontown, Wash. Feb. 25, 1901: A woman threw her six children down a 30 foot deep well, "then jumped into the well, and, the belief is, held their heads under water until all were drowned."²⁵⁵ "She is violently insane. The woman's husband died a year ago, and she has been supported by the county and charity of neighbors."²⁵⁶ Reporter interview supports evidence of insanity: "[S]he gave him incoherent reasons for slaying her little ones.... [s]he had read of the Chinese war and the terrible atrocities committed in the Orient, and had warning that the Chinese

²⁵³ *Trial of Abel Clements*, [Edinburgh, Scotland] *Caledonian Mercury*, Aug. 25, 1806, 4.

²⁵⁴ Laurel Thatcher Ulrich, *A Midwife's Tale: The Life of Martha Ballard, Based on her Diary, 1785-1812* 291-307 (1990),; *Horrid Murder! At An Early Hour On Wednesday Morning Last, The Inhabitants Of This Town Were Alarmed With The Dreadful Information... 1* (1806).

²⁵⁵ *Drowned Her Six Children*, *Adams County News* [Ritzville, Wash.] Feb. 27, 1901, 4.

²⁵⁶ *Washington Standard* [Olympia, Wash.], Mar. 1, 1901, 3.

were coming today to burn her house and slay her children... Mr. Rustemeyer... was well acquainted with the family... He said... Mrs. Wurzer was never considered just right in her mind, and thinks she should have been restrained of her liberty long ago.” Weapon: drowning.²⁵⁷

Roth has elsewhere argued that children should not be included as victims of mass murder:

But Cramer’s claim that axes, clubs, and knives can kill or wound are effective tools for committing mass murder is misleading.... The husband who attacked his family with an axe in Clarksburg, Virginia, in 1805 killed only one adult, his wife. *His other eight victims were his children.* And the husband who attacked his family with a knife in Hallowell, Maine, in 1806 killed only one adult, his wife. *His other 7 victims were his children.* *Cramer’s evidence does not show that edged and blunt weapons are effective tools for committing mass murder.* It shows instead that infants and children are not capable of defending themselves against attacks by adults. That conclusion is consistent with the extensive literature in contemporary criminology that shows that young children are killed in the overwhelming majority of cases with weapons other than firearms, because adults can kill children so easily with physical force or everyday household objects.²⁵⁸ [emphasis added]

Belvidere, N.J. (1843)

Two (perhaps three) men murdered John Castner, his wife, one of their children, “and an old bachelor brother-in-law.” The purpose was believed to be either robbery or inheritance of the land by one of the murderers. Weapon: blunt object²⁵⁹

Before 1960, there were 807 non-firearm mass murders: 3,812 dead: an average of 4.72 dead per incident; 866 exclusively firearms mass murders, 3,740 dead: an average of 4.31 dead per incident. (For four or more dead: 393 non-firearm incidents, 2,590 dead, an average of 5.59 dead per incident. Firearms incidents: 313 with 2,110 dead; 5.74 average.) Firearms mass murders were not rare, even with “primitive” technology:

²⁵⁷ *Killed Her Children, Cottonwood [Ida.] Report*, Mar. 1, 1901, 1.

²⁵⁸ Supplemental Sur-Rebuttal Expert Report And Declaration Of Randolph Roth, *Rupp v. Bonta*, (C.D.Cal. 2023), 6-7.

²⁵⁹ *The Warren Tragedy*, AMERICAN REPUBLICAN AND BALTIMORE DAILY CLIPPER, Jan. 23, 1845. 1.

Swan River, Minn. Terr. (1860)

Early 1860 or late 1859: A very complex incident. One Chippewa warrior (“A”) murdered another Chippewa (“B”). A few days later, B’s squaw (“C”) saw A, and shot him. A’s brother (“D”) shot C. C’s brother (“E”) shot D.

Category: public

Suicide: no

Cause: revenge

Weapon: firearm²⁶⁰

Coldwater, Mich. (1865)

Jan. 30, 1865: Young man becomes engaged to a woman in Lorain Co., Ohio. This is a problem, because his wife in Coldwater, Mich., is about to give birth, so he returns home, where his wife lives with the young man’s parents. In the midst of giving birth, the young man murdered his wife. When the young man’s father and mother showed up, he shot them to death. (Other accounts identify the town as Woodstock, and that the murder of his wife and unborn child followed the murder of his parents.) His behavior after arrest, as newspaper coverage described, “suggests the charitable conjecture that the man is insane.” He confessed the crime and signed autographs for the crowd around the jail that described himself as “murderer of his wife, father and mother.” He invited his friends in Lorain County to visit him in jail “where they would find him ‘playing checkers with his nose, on the jail windows.’”

Category: family

Suicide: no

Cause: mental illness

²⁶⁰ *Indian revenge, Muscatine [Iowa] Weekly Journal*, Jan. 27, 1860, 1.

Weapon: firearm²⁶¹

Sleepy Hollow, N.Y. (1870)

Jan. 1. 1870: Farmer murdered his wife, and two of his neighbors, father and son, who appear to have visited the murderer's wife in his absence. The murderer had a reputation for being too fond of rum.

Category: public

Suicide: no

Cause: jealousy?

Weapon: firearm²⁶²

Glenville, Minn. (1889)

Feb. 15, 1889: Murderer, relative of the victims, shot to death, "Mary Chemeieck, aged six, and her sister Rose, aged eleven..." Apparently, his niece, Rose, had spurned his advances. He then murdered their mother with a shotgun and committed suicide.

Suicide: yes

Cause: unknown

Weapon: pistol, shotgun²⁶³

A mass murder that is *not* part of my database shows how "primitive" firearms technology is not a barrier to school mass murder. A former teacher showed up at a Bremen, Germany, Catholic school "armed with six loaded revolvers." He killed one teacher, two children, "three children were gravely injured and three other children were slightly wounded." The article

²⁶¹ *A Triple Murder*, [Plymouth, Ind.] *Marshall County Republican*, Feb. 16, 1865, 1.

²⁶² *A Triple Murder at Sleepy Hollow*, *Wilmington [N.C.] Journal*, Jan. 14, 1870, 1.

²⁶³ *He was a Rejected Lover*, *St. Paul Globe*, Feb. 17, 1889, 1.

described him as “demented.”²⁶⁴ Depending on whether they were they were 5-shot, 6-shot, or 9-shot revolvers (all still common today) he could have fired 30, 36, or 54 shots without reloading.

Firearms became more common weapons by the 1920s. Axes and hatchets as mass murder weapons declined as wood stoves became less common. While I have not categorized the poison mass murders as precisely as I might do if I were starting from scratch, “illuminating gas” and “Rough on Rats” (both were commonly used to wipe out spouses and children) declined as automobile exhaust poisoning rose.

This should be no surprise; mass murderers use what is available. A May 20, 1931, Mattoon, Ill. incident catches this improvisational nature well. A former employee of her late husband attempted to burn to death the woman and her two daughters with whom he had recently moved to Illinois. They escaped the burning house. He then shot to death the mother, attempted to strangle the daughters, then shot them and beat them to death with an automobile starter crank. Weapons: firearm, strangle, blunt.²⁶⁵ Similarly, May 30, 1840: The husband, murdered his mother-in-law and her five children. Cause: robbery. Weapon: strangulation; stone; axe, rifle; knife. He confessed after the first hanging failed.²⁶⁶

Even today’s gun mass murderers are not as narrowly focused as the popular imagination sees them. May 24, 2014, Isla Vista, Cal.: College student, upset about his sex life (or rather its absence) stabbed to death his three roommates, shot three women at a sorority (two of whom died), shot another student, injured two bicyclists by ramming them with his car, and shot and wounded four pedestrians.²⁶⁷

²⁶⁴ *Maniac Shot Many People, Barre [Vt.] Daily Times*, Jun. 20, 1913, 1.

²⁶⁵ *Woman Shot. Tots Choked, Brownsville Herald*, May 20, 1931, 1.

²⁶⁶ *Trial, Confession, and Execution of Robert M’Conaghy for the Murder of Mrs. Brown and her Five Children* 6-7, 9-10 (1841).

²⁶⁷ Shelby Lin Erdman and Greg Botelho, *Timeline: A killer's rampage through a California college town*, CNN, May 27, 2014, <https://www.cnn.com/2014/05/24/us/california-rampage-timeline/>, last accessed November 27, 2018.

For the following table, some of these weapon types require explanation.

UNKNOWN means the weapon type was not identified in the article.

AIRCRAFT is for murders committed with an airplane (not all of which took place on Sep. 11, 2001). (Bombing of planes is in the EXPLOSIVE weapon type.)

TRAIN involves intentional derailment of trains to cause loss of life. The motivation for most of these crimes is uncertain. One was insurance fraud; authorities alleged “that the men entered into the plot to get rid of their wives and at the same time to collect damages from the railroad company.” One of the murderers collected \$500 from the railroad for injuries to his wife.²⁶⁸ Another, on Dec. 27, 1934: Police charged three men with the intentional derailment of a train, in the hopes that one of the train crew would lose his job, so that one of the three would get that job. The crash killed three employees and injured 16 passengers.²⁶⁹

Incident count by weapon type for mass murders before 1960 where only one weapon type was used:

method	count_incident	total_dead
arson	72	466
ax	93	419
blunt	91	363
drown	24	82
explosive	34	278
firearm_unknown	408	2063
hang	40	149
hatchet	19	63
knife	49	178
machine_gun	7	37
other	13	122
othersharp	28	106

²⁶⁸ *Plot to Kill Their Wives*, [Maysville, Ky.] *Evening Bulletin*, Mar. 26, 1896, 1.

²⁶⁹ *Trio Held In Wreck Accused Of Murder*, [Washington, D.C.] *Evening Star*, Mar. 10, 1935, 1.

method	count_incident	total_dead
personal	2	9
pistol	201	693
poison	67	260
rifle	119	451
shotgun	84	307
strangle	16	54
train	15	76

H. Killing People Without Modern Firearms Technology

How do you kill lots of people without modern firearms technology? Before 1960, there are four incidents with more than 50 dead. Colfax, Louisiana (1873) where the KKK murdered 150 black civil rights activists using firearms; Mountain Meadows, Utah (1857) where Mormons with firearms of type unknown murdered 140 settlers moving west; Tulsa, Okla. (1921), at least 89 murdered by a mob, with a variety of weapons, Calumet, Mich. (1913) where one person provoked a panic that killed 74 people, mostly trampled to death.

By comparison, my database, while incomplete after 1960, has six mass murders with more than 50 dead after 1960: San Juan, P.R. (1986), 97, dead by arson committed by three men; New York City (1990), 87 dead by arson by one person; Oklahoma City (1995), 168, dead by explosive committed by two (only one was given a capital sentence); New York City (2001), 3047, dead by aircraft, and Arlington, Va. (2001), 184, dead by aircraft with 19 murderers from both events; Las Vegas (2017), 58, dead by one rifleman.

1. Explosives

One popular method was explosives.

Sells, Ark. (1900)

Oct. 15, 1900: “[F]ather, mother, and four young children blown to atoms” by dynamite explosion. “It is believed that a dispute over a homestead claim prompted the outrage.”

Category: family non-resident

Suicide: no

Cause: greed

Weapon: explosives²⁷⁰

Cripple Creek, Colo. (1904)

Jun. 5, 1904: Someone set off a bomb under a train station platform where non-union men were waiting for a train during a strike. Twelve died “and a score or more injured...” Subsequently, “Forty shots were fired in a crowd in the street. Two men were killed and at least six persons wounded.” One of the dead “by blow from revolver.” Then the National Guard troops showed up and attempted to restore order.

Category: public

Suicide: no

Cause: labor

Weapon: explosives, firearm, blunt²⁷¹

Mullins, W.Va. (1909)

5/16/1909: Organized crime group The Black Hand used dynamite to blow up an Italian boarding house. One of the victims broke faith with the Black Hand. The explosion killed four and injured three.

Category: residential

²⁷⁰ *Whole Family Murdered*, [St. Genevieve, Mo.] *Fair Play*, Oct. 20. 1900, 1.

²⁷¹ *Terrorism and Death Dominate Colorado*, *Saint Paul Globe*, Jun. 7, 1904, 1.

Suicide: no

Cause: gang

Weapon: explosives²⁷²

Mudlow, W.Va. (1912)

7/26/1912: Striking miners dynamited a machine gun operated by agents of the Baldwin detective agency, killing three miners and seven detectives.

Category: public

Suicide: no

Cause: labor

Weapon: explosives²⁷³

Superior, Penn. (1914)

11/15/1914: Someone blew up the Kanaza general store, which was also the Kanaza residence, with two separate dynamite bombs, killing Kanaza's three children and two other men. Five others suffered injuries. Mr. Kanaza believed the motive was revenge for a lawsuit.

Category: family

Suicide: no

Cause: revenge

Weapon: explosives²⁷⁴

San Francisco, Cal. (1916)

Feb. 22, 1916: Someone set off a dynamite bomb during the "Preparedness Day Parade," in preparation for World War I. While the identity of the murderers is uncertain (California Governor Culbert Olson many years later pardoned those originally convicted as evidence of

²⁷² *Black Hand Kills Four By Dynamite, Bluefield [W.Va.] Evening Leader*, May 17, 1909, 1.

²⁷³ *Seven Detectives and Three Miners Dead, Seattle Star*, Jul. 26, 1912, 1.

²⁷⁴ *Dynamite Kills Five In Spite Act, New-York Tribune*, Nov. 16, 1914, 1.

perjury at the trial accumulated), circumstances suggests that it was the work of anarchists, hostile to U.S. involvement in the war.

Category: public

Suicide: no

Cause: terrorism

Weapon: dynamite²⁷⁵

New York, N.Y. (1920)

09/16/1920: Anarchists set off a bomb in Wall Street, killing 31 and injuring 125 others.

Category: public

Suicide: No

Cause: terrorism

Weapon: TNT²⁷⁶

Germantown, Md. (1920)

11/18/1920: Two neighbors had a longstanding feud. On Election Day, one shot the other in the neck. The farmer shot in the neck took revenge with 50 pounds of dynamite, killing his neighbor, the housekeeper and her two children.

Category: family non-resident

Suicide: no

Cause: revenge

Weapon: explosives²⁷⁷

²⁷⁵ *Dynamite Trial Opens Today in 'Frisco; 10 Were Killed by Bomb, Bemidji* [Minn.] *Daily Pioneer*, Jan. 3, 1917, 1; *Preparedness Day Bombing*, https://en.wikipedia.org/wiki/Preparedness_Day_Bombing#Later_investigations.

²⁷⁶ *Bomb Batters Wall Street; 31 Slain, 125 Hurt, The Sun and the New York Herald*, Sep. 17, 1920, 1.

²⁷⁷ *Bomb Wrecks Farmers Home Killing Three*, [Salem, Ore.] *Capital Journal*, Nov. 19, 1920, 1.

Pittsburgh, Penn. (1925)

May 6, 1925: Two bombs destroyed three buildings, killing eight people immediately, and fatally injuring two others. One of the buildings housed a grocer who had been the victim of extortion threats by a Black Hand society.

Category: residential

Suicide: no

Cause: extortion

Weapon: explosive²⁷⁸

Bath, Michigan (1927)

May 18, 1927: Treasurer of the local school board was angered by his property tax increase to pay for a new school building that he had opposed. He placed a dynamite bomb in the basement of the school, by which method he murdered 37 children and six adults as well as seriously injuring 44 others. Only a wiring mistake prevented other charges from taking down the rest of the building which endangered 150 more students. The murderer had already beaten his wife to death at their home before blowing up their house. He blew himself up in his car in front of the school 30 minutes after the school explosion.

Category: public

Suicide: yes

Cause: revenge

Weapon: explosive, blunt object²⁷⁹

²⁷⁸ *Eight Are Killed In Blasted Homes*, [Washington, D.C.] *Evening Star*, May 06, 1925, 1.

²⁷⁹ *Fate Saves Scores in Blast When Maniac's Plot Kills 43*, [Washington, D.C.] *Evening Star*, May 19, 1927, 1.

New York, N.Y. (1927)

Oct. 8, 1927: Someone set off a dynamite bomb demolishing a four-story apartment building, killing five and injuring eleven. Why did police assume a dynamite bomb? “Finding of 20-Pound Unexploded Bomb Leads Police to Suspect Infernal Machine.”

Category: public

Suicide: no

Cause: unknown

Weapon: explosive²⁸⁰

Newton, Mass. (1928)

01/31/1928: Someone used dynamite to destroy a building containing “extensive liquor making apparatus in the basement.” Six people died.

Category: private

Suicide: no

Cause: gang?

Weapon: explosive²⁸¹

Seat Pleasant, Md. (1930)

01/01/1930: A belated and misdelivered Christmas gift was dynamite and exploded as the family unwrapped it. The explosion killed an expectant mother and two siblings, her mother, and injured two other siblings. The family was new to the community with no known enemies.

Category: family non-resident

Suicide: no

Cause: unknown

²⁸⁰ *Four Killed In Bomb Explosion In Tenement District Of New York*, [Douglas, Ariz.] *Douglas Daily Dispatch*, Oct. 09, 1927, 1; *Five Killed, 11 Hurt As Explosion Razes 35th St. Tenement*, *New York Times*, Oct. 9, 1927, 1.

²⁸¹ *Mystery Explosion Is Fatal To Six -Bodies Taken From Debris Of Two-Story*, *Brownsville Herald*, Jan. 31, 1928, 1.

Weapon: explosives²⁸²

Chesterton, Ind. (1933)

10/10/1933: A bomb explosion in the cargo compartment aboard a United Airlines flight ripped the plane apart, killing seven people. Motive remained uncertain.

Category: public

Suicide: no

Cause: unknown

Weapon: explosive²⁸³

Denver, Colo. (1955)

11/1/1955: The 23-year-old son of passenger Daisy E. King eventually confessed that he placed a 25-stick dynamite bomb in her luggage, blowing up her airliner, killing 44 people. The murderer had taken out life insurance policies on his mother and was expecting to receive a “substantial inheritance” upon her death.

Category: public

Suicide: no

Cause: greed

Weapon: explosives²⁸⁴

Since 1960, this technology, despite attempts to regulate explosives, remain a big dead per incident killer. Using fertilizer, a murderer on Apr. 20, 1995, set off a truck bomb in front of the Oklahoma City Federal Building killing 168 people and injuring hundreds more.

²⁸² *Gift Package Bomb Kills Woman; 5 Hurt*, [Washington, D.C.] *Evening Star*, Jan. 01, 1930, 1; *Bomb Survivors Tell Of Explosion*, [Washington, D.C.] *Evening Star*, Jan. 12, 1930, 1.

²⁸³ *Ill-Fated Plane Wrecked By Bomb US Prober Says*, *Indianapolis Times*, Oct. 14, 1933, 1.

²⁸⁴ *Flowers And Flowers, Murders In The United States*, op cit. 30-1; FBI, *Jack Gilbert Graham*, <https://www.fbi.gov/history/famous-cases/jack-gilbert-graham>, last accessed October 5, 2022.

Category: public

Suicide: no

Cause: terrorism

Weapon: explosives²⁸⁵

2. Arson

Arson is also a common and very low technology method to cause lots of suffering.

New York, N.Y. (1903)

11/1/1903: Police and coroner believed that a tenement building fire that killed 26 people was “of incendiary origin.”

Category: residential

Suicide: no

Cause: unknown

Weapon: arson²⁸⁶

Boston, Mass. (1913)

Dec. 3, 1913: A lodging house refused a man a room “for want of 15 cents.” He lit the structure on fire, killing 27 lodgers in a dangerously renovated structure.

Category: residential

Suicide: no

Cause: revenge

Weapon: arson²⁸⁷

²⁸⁵ Flowers and Flowers, *Murders in the United States*, 56-7.

²⁸⁶ *Tenement House Fire*, [Maysville, Ky.] *Evening Bulletin*, Nov. 2, 1903, 4.

²⁸⁷ *Burns Lodging House When Refused Room; 27 Homeless Men Died*, [New York, N.Y.] *Evening World*, Dec. 3, 1913, 1.

San Francisco, Cal. (1944)

03/27/1944: Over a period of four hours, five San Francisco skid row hotels “burst into flames” following a previous weekend of 11 fires in Oakland hotels. The New Amsterdam Hotel fire killed 22 and injured 27. “Authorities noted an odor of kerosene or gasoline.” One tenant, 33, showed injuries from the fire and was held in the “hospital psychopathic ward.”

Category: public

Suicide: no

Cause: mental illness

Weapon: arson²⁸⁸

Tulsa, Okla. (1921)

05/01/1921: The police arrested a young black man for what later appears to have been an accidental touching of a white female elevator operator. Rumors spread that police charged him with sexual assault. A lynch mob arrived at the county jail. The sheriff and deputies prevented seizure of the young man. A group of armed black men offered to help the sheriff defend the jail. This display of arms by black men inflamed white public sentiment leading to the destruction of Greenwood, the black section of Tulsa. More than one thousand homes were burned and *at least* 89 dead. Newspapers and public officials removed news accounts and official records about the riot from files. The Tulsa Race Riot Commission in 2001 “concluded that between 100 and 300 people were killed and more than 8,000 people made homeless over those 18 hours in 1921,” with many bodies buried in unmarked mass graves.

Category: public

Suicide: no

²⁸⁸ 22 Killed In Hotel Fire In San Francisco, [Santa Cruz, Cal.] *Santa Cruz Sentinel*, Mar. 29, 1944, 1.

Cause: racism

Weapon: firearms, arson, unknown?²⁸⁹

Chicago, Ill. (1958)

Dec. 1, 1958: Our Lady of the Angels school burned, killing 95.²⁹⁰ Several years later, a 13-year-old confessed while on a lie detector that he had started the fire: “because he hated school, rebelled at the authority of teachers, liked to hear the sound of fire sirens and to watch fire engines race along the street.”²⁹¹

After 1960, there have been several arson mass murders with equal or larger death counts, and this remains a common method of mass murder in other nations. In Australia, an arsonist burned the Childers, Queensland’s Palace Backpackers Hostel in 2000, killing 15.²⁹² The 2011 Quakers Hill Nursing Home fire killed eleven, set by a nurse after police questioned him about drug abuse.²⁹³ Japan had several arson mass murders in late 2021, killing 24, 17, and 33 in separate incidents.²⁹⁴ These required no advanced firearms technology or even firearms. The previously mentioned San Juan, P.R. arson mass murder killed 97.²⁹⁵ The March 25, 1990, Happyland Social Club fire killed 87 people, leaving three survivors. Angry at his girlfriend, the murderer used \$1 of gasoline and a match to set fire to her place of employment.²⁹⁶

²⁸⁹ *Tulsa Race Riots*, <https://www.history.com/topics/roaring-twenties/tulsa-race-massacre>, last accessed July 5, 2021.

²⁹⁰ Our Lady of the Angels School fire, https://en.wikipedia.org/wiki/Our_Lady_of_the_Angels_School_fire

²⁹¹ *Boy Admits Fire Fatal To 95*, *Miami News*, January 16, 1962, 1.

²⁹² *A Decade On, Childers Remembers Hostel Fire Tragedy*, *Brisbane [Australia] Times*, Jun. 23, 2010.

²⁹³ Candace Sutton, Man Who Murdered 11 People in Nursing Home Fire 'Frothed At The Mouth' From Drugs And 'Put Nails In Tyres And Poured Paint' Over Boss's Car, Inquest Hears, [U.K.] *Daily Mail*, Sep. 8, 2014.

²⁹⁴ Makiko Inoue, Motoko Rich and Hikari Hida, *24 Dead in Suspected Arson at Office Building in Japan*, *N.Y. Times*, Dec. 16, 2021, <https://www.nytimes.com/2021/12/16/world/asia/japan-fire-osaka.html>, last accessed November 21, 2022.

²⁹⁵ *3 Teamsters Charged in San Juan Hotel Fire*, *Chicago Tribune*, Feb. 4, 1988, <https://www.chicagotribune.com/news/ct-xpm-1988-02-04-8803270617-story.html>, last accessed November 24, 2018.

²⁹⁶ Ralph Blumenthal, *Fire in the Bronx; 87 Die in Blaze at Illegal Club; Police Arrest Ejected Patron; Worst New York Fire Since 1911*, *New York Times*, Mar. 26, 1990.

New Orleans, La. (1973)

Jun. 24, 1973: The murderer took revenge for being expelled from the UpStairs Lounge, a gay bar. He walked down the street and bought a bottle of cigarette lighter fluid, killing 33 people.²⁹⁷

Chicago, Ill. (1976)

01/30/1976: An employee of Wincrest Nursing Home with a mental illness problem (pyromania) started a fire in a clothing wardrobe, which killed 22 residents. The employee was charged with arson.²⁹⁸

3. Brutal Misuse of Tools

Mass murders do not even require purpose-built tools.

Villisca, IA. (1912)

Sep. 9, 1912: It appears that a business competitor and member of the Iowa State Senate murdered Joseph Moore, his wife Sarah, their four children and two visiting children “with an ax.” An “itinerant minister” was charged. The Iowa Attorney-General “sought to commit” the minister “to an insane asylum, a step that would bar the prosecution of any other person suspected of the crime.”

Relatives of the victims claimed that the Attorney-General blamed the wrong person; in response, the Iowa legislature passed a law prohibiting public discussion of the crime. This led to an “injunction against J.N. Wilkerson, a detective, whose four years’ investigation of the murders cast suspicion on a prominent state senator.” The public meeting by Villisca residents took place in Omaha, Neb., instead.

²⁹⁷ Elisabeth Dias with Jim Down, *The Horror Upstairs*, *Time*, Jul. 1, 2013.

²⁹⁸ National Fire Protection Association, *Preliminary Report NFPA Fire Analysis Department Wincrest Nursing Home*, 1, 4, <https://oac.cdlib.org/view?docId=hb9v19p0sd&doc.view=frames&chunk.id=div00008&toc.id=0>, last accessed November 27, 2022; *Woman Indicted in Chicago Blaze*, *New York Times*, Feb. 4, 1976.

Category: greed

Suicide: no.

Cause: greed

Weapon: ax²⁹⁹

4. Panic

While a less common mass murder weapon, panic can lead to trampling murders.

Calumet, Mich. (1913)

Dec. 24, 1913: A man shouted, “Fire! Fire! Everybody rush!” in the Italian Hall where striking miners and their families were meeting for a Christmas party. (There was no fire.) As the crowd attempted to exit the hall through an inadequate exit, seventy-four people (mostly children) were trampled to death.³⁰⁰ One account ascribed the false claim to “a drunken” man,³⁰¹ but considering the murder of strikebreakers in Calumet a few weeks before in the middle of a fierce labor dispute,³⁰² this seems unlikely as the cause.

Category: public

Suicide: no

Cause: labor

Weapon: mouth³⁰³

I. Causes

The focus of the State on the *method* of mass murder might be better spent on solving the problem by solving underlying causes.

²⁹⁹ *Villisca Ax Murders to Be Discussed in Mass Meeting*, *Omaha Daily Bee*, Jul. 6, 1917, 1.

³⁰⁰ *Ore Miner Charged Eight-Seven Cents for Month’s Labor*, *Omaha Daily Bee*, Feb. 12, 1914, 1.

³⁰¹ *Day of Joy is One of Sorrow*, [Valley City, N.D.] *Weekly Times-Record*, January 1, 1914, 6.

³⁰² *Strike Breakers Taken to Mines at Point of Pistols*, *Omaha Daily Bee*, Jan. 11, 1914, 1 (based on U.S. Dept. of Labor report).

³⁰³ *Ore Miner Charged Eight-Seven Cents for Month’s Labor*, *Omaha Daily Bee*, Feb. 12, 1914, 1.

The following table shows the proximate cause of all mass murders in my database before 1960. (After 1960, the data is not yet complete.) The following bullet points describe the abbreviations that are used in the table:

- **Rob** is a mass murder performed as part of a robbery or to eliminate witnesses to the robbery.
- **MI** (Severe mental illness, primarily psychoses and other illnesses that cut off the sufferer from reality) includes all crimes where either contemporary accounts describe the murderer as insane, or where the nature of the crime makes other explanations implausible (this is necessarily a judgment call, on which my experience with mentally ill relatives and friends informs my opinion).

The legal definition of mental illness is much narrower than the medical definition. Through most of U.S. history, the M'Naughton Rule (sometimes spelled M'Naughten) defined legal insanity as: "at the time of committing the act, the accused was laboring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing or, if he did know it, that he did not know what he was doing was wrong."³⁰⁴ A person who did not know he was doing wrong, was insane.

Persons who are mentally ill sometimes know that they are doing wrong and try to escape arrest and conviction (perhaps because the "aliens," or the CIA or KGB "agents" that they have just murdered are still after them). Such persons are legally sane, while in any conventional sense, they are as "mad as hatters."

- **MI?** are persons whose sanity seems questionable but for which contemporary accounts are less than persuasive.
- **PPD** (Postpartum Depression): Tragically, many mentally ill or possibly mentally ill incidents (not included in the MI or MI? category) are mass murders by mothers with recently born babies. In cases where the murders are by recent mothers and where news accounts provide no other explanation I have categorized these as **postpartum depression**. Some news accounts identified the mother as "temporarily insane" with no previous history of mental illness. In a few cases the news accounts report on previous mental illness hospitalizations associated with previous births.
- Many cases I have listed as "**PPD?**" because this is a plausible explanation when no other seems more likely.
- **Resist** is a criminal resisting arrest.
- **Unknown** describes a very large number of crimes where either the motivation is unclear or the newspaper coverage is silent; this also includes some mass murders where the inability to identify the murderer makes cause impossible to determine.

³⁰⁴ *The insanity defense and Diminished Capacity*, <https://www.law.cornell.edu/background/insane/insanity.html>

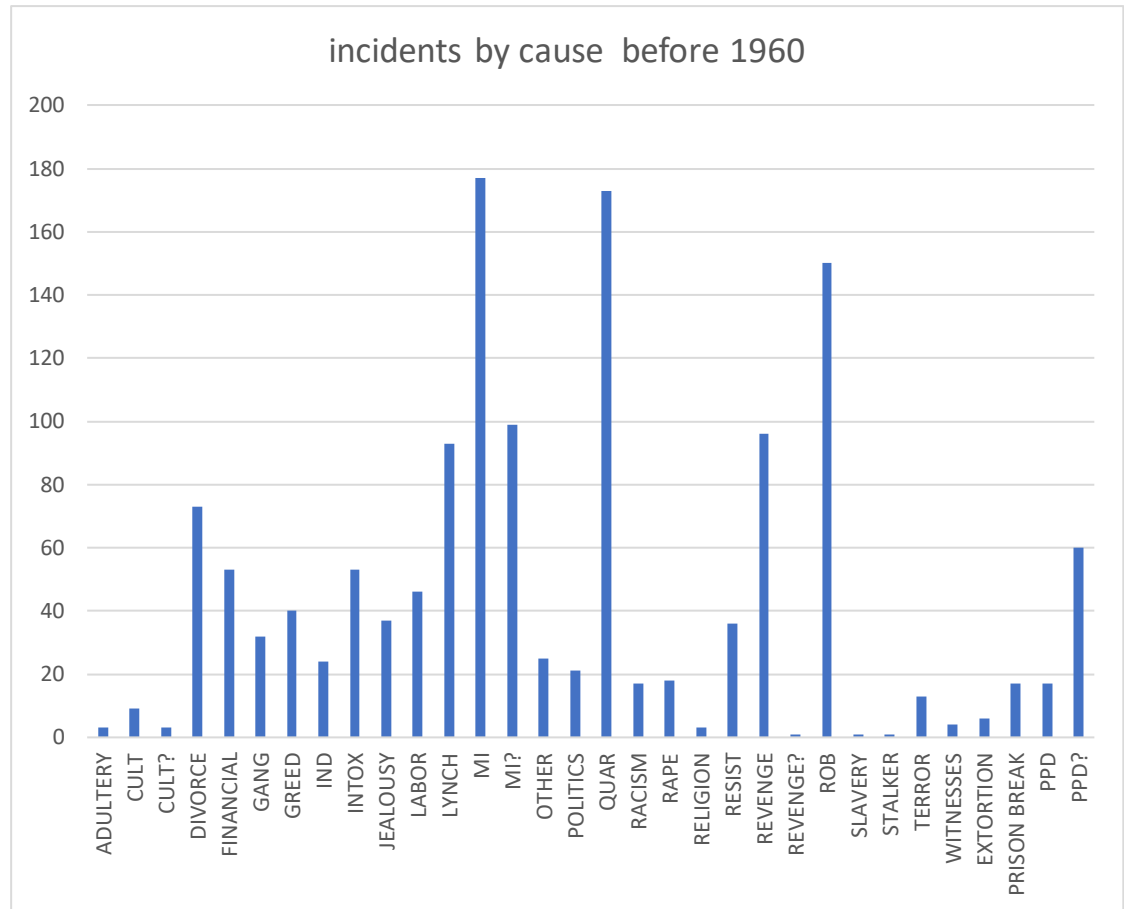
- **Religion** is mass murders committed as part of religious persecution. (And yes, in America!)
- **Racism** is its frequent cousin. In some cases, these include revenge or retribution against Indians for crimes not, or at least not clearly committed by the victims.
- **Politics** are murders committed to advance a political cause.
- **Terror** are mass murders committed to cause mass fear for purposes of political change outside elections. Example: 9/11.
- **Revenge** are mass murders committed to take revenge for real or perceived injuries by the murderer, his family, or acquaintances.
- **Ind** are crimes between Indians and settlers that are not official acts of war, but that might have been seen that way by the murderers. I have classified all attacks against peaceful travelers, settlers, and Indians in this cause. (In some cases, the killers openly admitted that the victims were “peaceful,” but were supplying guns to less friendly tribes.)³⁰⁵
- **Financial** is a strange subclass of family murders committed, usually by a parent concerned their family is about to become impoverished, who then “protect” them from that suffering by mass murder. In some cases, this seems to be a form of mental illness: at least one example involved a mass murderer who was in no danger of impoverishment.
- **Labor** are crimes committed during labor disputes, sometimes against strikebreakers, sometimes against labor unionists.
- **Quarrel** are incidents that start out as some relatively minor dispute before escalating into disproportionate response.
- **Cult** refers to mass murders committed by oddball religious cults; I was surprised how widespread these were in the early 20th century (the Church of the Sacrifice slaughtered entire families, often with the family’s own ax).
- **Rape** are mass murders committed to eliminate witnesses to a rape.
- **Greed** are mass murders carried out to obtain wealth other than by robbery, often by inheritance from the deceased.
- **Divorce** is an alternative form of **Revenge**; divorce has been or is in the process and someone is seeking retribution. This includes separated spouses attempting reconciliation.
- **Adultery**: a variant of **Revenge**.
- **Jealousy**: should be obvious.
- **Intoxication** are crimes attributed to alcohol or drug-induced stupidity. The strong overlap between **mental illness** and **substance abuse** (one often causing the other) makes some of these hard to distinguish, especially 150 years after the crime.

³⁰⁵ *From California and Oregon, [Washington, D.C.] Evening Star, Mar. 21, 1860, 2.*

- **Bullying** is a recent category, and one that I suspect reflects some deeper mental illness; I was bullied as a child, had access to low-grade explosives (nerds have peculiar hobbies), and never even *thought* of mass murder (or even low-intensity revenge).
- **Stalker**: someone did not get their attentions rewarded as they saw fit.
- **Witnesses**: Eliminating witnesses to some crime other than rape or robbery.

Lookup to cat	incidents	dead
ADULTERY	3	11
CULT	9	41
CULT?	2	9
DIVORCE	75	271
FINANCIAL	55	221
GANG	32	119
GREED	38	254
IND	24	191
INTOX	54	203
JEALOUSY	35	121
LABOR	46	465
LYNCH	92	350
MI	182	756
MI?	102	457
OTHER	27	120
POLITICS	21	143
QUAR	175	624
RACISM	18	270
RAPE	19	66
RELIGION	3	175
RESIST	35	154
REVENGE	95	428
REVENGE?	1	3
ROB	152	643
SLAVERY	1	4
STALKER	1	3
TERROR	14	284
UNKNOWN	435	1754
WITNESSES	4	28
EXTORTION	6	43
PRISON BREAK	17	79
PPD	17	71
PPD?	61	205

- Plotting the causes without UNKNOWN shows the high frequency causes:

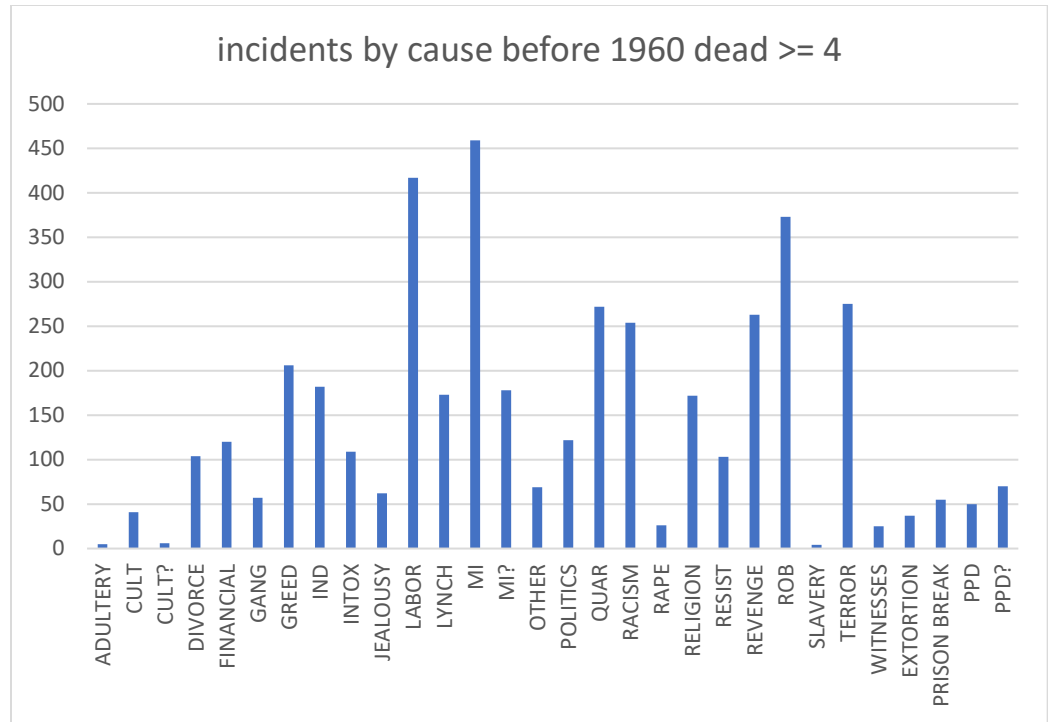


Incidents by cause before 1960 where dead are four or more:

incidents by cause before 1960 dead >= 4		
Lookup to cause	incidents	dead
ADULTERY	1	5
CULT	9	41
CULT?	1	6
DIVORCE	21	104
FINANCIAL	22	120
GANG	11	57
GREED	21	206
IND	21	182
INTOX	23	109
JEALOUSY	14	62

incidents by cause before 1960 dead >= 4		
Lookup to cause	incidents	dead
LABOR	30	417
LYNCH	33	173
MI	85	459
MI?	38	178
OTHER	10	69
POLITICS	14	122
QUAR	56	272
RACISM	13	254
RAPE	6	26
RELIGION	2	172
RESIST	17	103
REVENGE	37	263
ROB	70	373
SLAVERY	1	4
TERROR	11	275
UNKNOWN	182	1007
WITNESSES	3	25
EXTORTION	4	37
PRISON BREAK	9	55
PPD	10	50
PPD?	16	70

Before 1960 at least four dead, excluding UNKNOWN:



It should surprise no one that mental illness and likely mental illness are a high frequency category. While most mentally ill people are primarily a hazard to themselves, severely mentally ill people are overrepresented in murder and other violent crimes.³⁰⁶ Deinstitutionalization of the mentally ill starting with New York in 1964 and California in 1969 played significant roles in increased homelessness and violent crime rates.³⁰⁷

Professor Bernard E. Harcourt points out that the rise in murder rates in the 1960s, and their decline in the 1990s correlated with the change in the percentage of the population that was institutionalized: those who were confined to either a mental hospital or prison. According to Harcourt, sociologists examining the expansion of imprisonment in the 1990s, the so-called “incarceration revolution,” missed the even more important component of institutionalization:

³⁰⁶ See Clayton E. Cramer, *Mental Illness and the Second Amendment*, 46 CONNECTICUT LAW REVIEW 1301-6 (May 2014):(collecting studies).

³⁰⁷ See Clayton E. Cramer, *My Brother Ron: A Personal and Social History of the Deinstitutionalization of the Mentally Ill* (2012) and Jean Isaac Rael and Virginia C. Armat, *Madness In The Streets: How Psychiatry And The Law Abandoned The Mentally Ill* (1990) for how beautiful abstract theories and fanaticism created the tragic urban landscape of modern America.

mental hospitals and then prisons, as mentally ill persons became guests of the state for serious crimes. When adding mental hospital inmates to prisoners, Harcourt found an astonishingly strong negative correlation between the institutionalization rate, and the murder rate: -0.78. Harcourt found that even when adjusting for changes in unemployment and the changing fraction of the population that was at their peak violent crime ages, the negative correlation remained strong, and did a better job of predicting both the 1960s rise and the 1990s decline in murder rates than other models.³⁰⁸

Steven P. Segal of the University of California, Berkeley studied state-to-state variations in murder rates and mental health care, controlling for socioeconomic, demographic, and geographic data. He concluded that “[l]ess access to psychiatric inpatient-beds and more poorly rated mental health systems were associated with increases in the homicide rates of 1.08 and 0.26 per 100,000, respectively.” (Since the national average homicide rate was 7.4 per 100,000 people for 2020,³⁰⁹ more access to beds is clearly quite important in reducing homicide rates; “poorly rated mental health systems” matter, but not as dramatically.)

Segal observed an even greater difference from the variation in involuntary civil commitment (ICC) laws. “Broader ICC-criteria were associated with 1.42 less homicides per 100,000” or bit more than one-fourth of the national homicide rate. In short, states where involuntary commitment of the mentally ill was relatively easy had significantly fewer murders than states where it was very hard.³¹⁰

³⁰⁸ Bernard E. Harcourt, *From the Asylum to the Prison: Rethinking the Incarceration Revolution*, 84 TEXAS LAW REVIEW 1766-75 (2006).

³⁰⁹ Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality 1999-2020 on CDC WONDER Online Database, released in 2021. Data are from the Multiple Cause of Death Files, 1999-2020, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/ucd-icd10.html> on Nov 3, 2022 12:51:23 PM

³¹⁰ Steven P. Segal, *Civil Commitment Law, Mental Health Services, and US Homicide Rates*, *Social Psychiatry and Psychiatric Epidemiology*, November 10, 2011, <https://web.archive.org/web/20170323153646/http://kendas-law.org/national-studies/commitmenthomiciderates.pdf>, last accessed August 19, 2022.

A 2000 *New York Times* examination of mass murderers concluded:

The Times' study found that many of the rampage killers... suffered from severe psychosis, were known by people in their circles as being noticeably ill and needing help, and received insufficient or inconsistent treatment from a mental health system that seemed incapable of helping these especially intractable patients.

Only a small percentage of mentally ill people are violent, and many advocates bristle at any link between mental illness and violence out of concern that it will further stigmatize an already mistreated population.

However, the Times investigation of this particular style of violence -- public rampage killings -- turned up an extremely high association between violence and mental illness. Forty-seven of the killers had a history of mental health problems before they killed; 20 had been hospitalized for psychiatric problems; 42 had been seen by mental health professionals.³¹¹

A few representative cases from the period before 1960:

New Haven, Conn. (1930)

Jun. 21, 1930: The father had been involuntarily committed to a mental hospital. He escaped, threw his four children and wife from a 400-foot cliff, then jumped.

Category: family

Suicide: yes

Cause: mental illness

Weapon: other³¹²

New York, N.Y. (1953)

Apr. 01, 1953: A college professor, 52, under psychiatric care, strangled his wife and their two children, then stabbed himself to death.

Category: family

³¹¹ Laurie Goodstein and William Glaberson, *The Well-Marked Roads to Homicidal Rage*, *New York Times*, Apr. 10, 2000.

³¹² *Maniac Veteran Kills His Family*, *New Britain Herald*, Jun. 23, 1930, 9.

Suicide: yes

Cause: mental illness

Weapon: strangled³¹³

Eleva, Wisc. (1909)

Feb. 2. 1909: The father stabbed to death his four children, then “stabbed himself and then jumped from the barn loft with a rope around his neck. At the same time he hurled a fire brand into the stable, firing the barn.”

Category: family

Suicide: Yes.

Cause: “[Father] was recently released from an insane asylum.”

Weapon: knife³¹⁴

J. Summary

Mass murder, by groups, or by individuals is not new. It has often involved non-firearms and continues to do so today. The focus on firearms ignores the underlying causes, often severe mental illness not recognized or treated.

As noted above, untreated mental illness started this current campaign and many of the subsequent mass murders have had at their root mental illness which was unseen, ignored, or where the laws or policies made involuntary commitment impossible.³¹⁵ Fix the root problem or mass

³¹³ *Triple Murder, Suicide Apparent*, [Parsons, Kansas] *Parsons Sun*, Apr. 04, 1953, 7.

³¹⁴ *Murders Whole Family and Then Kills Self*, [Pendleton, Ore.] *East Oregonian*, Feb. 22, 1909, 8.

³¹⁵ See Clayton E. Cramer, *Mental Illness and the Second Amendment*, 46 CONN. L.R. 4:1301 (2014) for an examination of this problem and Clayton E. Cramer, *MY BROTHER RON: A PERSONAL AND SOCIAL HISTORY OF THE DEINSTITUTIONALIZATION OF THE MENTALLY ILL* (2012) for how we got here.

murderers will use the weapons they have historically used in the United States: arson,³¹⁶ vehicles,³¹⁷ explosives,³¹⁸ hammers,³¹⁹ axes,³²⁰ poison,³²¹ aircraft,³²² and train derailments.³²³ Or they might use the weapons mass murderers use in other nations: arson;³²⁴ vehicles;³²⁵ explosives,³²⁶ sharp objects,³²⁷ hammers;³²⁸ poison gas,³²⁹ and of course, in spite of much stricter firearms laws, guns.³³⁰

³¹⁶ 3 Teamsters Charged in San Juan Hotel Fire,” *Chicago Tribune*, Feb. 4, 1988, <https://www.chicagotribune.com/news/ct-xpm-1988-02-04-8803270617-story.html>, last accessed November 24, 2018 (97 dead); Ralph Blumenthal, *Fire in the Bronx: 87 Die in Blaze at Illegal Club; Police Arrest Ejected Patron; Worst New York Fire Since 1911*, *NEW YORK TIMES*, Mar. 26, 1990 (87 dead); Phil Luciano, *9-year-old arraigned on murder charges in deadly Goodfield arson fire*, *PEORIA JOURNAL STAR*, Oct. 21, 2019.

³¹⁷ Lauren del Valle, Ray Sanchez and Eric Levenson, *Terror suspect accused of killing 8 people on NYC bike path still believes in ISIS, defense attorney says*, *CNN*, January 9, 2023.

³¹⁸ FBI, *Oklahoma City Bombing*, <https://www.fbi.gov/history/famous-cases/oklahoma-city-bombing>, last accessed January 31, 2023 (168 dead); *Fate Saves Scores in Blast When Maniac’s Plot Kills 43*, [Washington, D.C.] *EVENING STAR*, May 19, 1927, 1; *Los Angeles, on Election Eve, in Ferment Over Confession of the McNamaras*, [Chicago, Ill.] *THE DAY BOOK*, Dec. 2, 1911, 1 (21 dead); *Seven Detectives and Three Miners Dead*, *SEATTLE STAR*, Jul. 26, 1912, 1 (10 dead).

³¹⁹ *A Family Slain*, *KANSAS CITY JOURNAL*, Mar. 4, 1899, 1 (5 dead).

³²⁰ *Five Battered With An Axe*, [Keokuk, Ia.] *DAILY GATE CITY*, Oct. 17, 1911, 1 (5 dead); *Mystery of 30 Axe-Murders is Believed Near Its Solution*, *ALBUQUERQUE MORNING JOURNAL*, Mar. 22, 1915, 1 (police believed one man murdered 29 people in five families over three years).

³²¹ *A Modern Borgia*, *NASHVILLE UNION AND AMERICAN*, Oct. 27, 1868, 1 (the maid murdered a family of seven).

³²² FBI, *CRIME IN THE UNITED STATES: 2001*, Section 5, <https://ucr.fbi.gov/crime-in-the-u.s/2001/01sec5.pdf> (3047 dead); *Id.*, (184 dead); *Id.*, (40 dead); Judith Cummings, *Kin of Suspect Defiant and Contrite*, *New York Times*, Dec. 11, 1987 (44 dead).

³²³ *Crack Flyer Jumps Track*, [De Kalb, Illinois] *DAILY CHRONICLE*, Mar. 17, 1941, 1 (5 dead).

³²⁴ *A Decade On, Childers Remembers Hostel Fire Tragedy*, *BRISBANE [Australia] TIMES*, Jun. 23, 2010 (15 dead); Candace Sutton, *Man Who Murdered 11 People in Nursing Home Fire 'Frothed At The Mouth' From Drugs And 'Put Nails In Tyres And Poured Paint' Over Boss's Car, Inquest Hears*, [U.K.] *DAILY MAIL*, Sep. 8, 2014, (11 dead).

³²⁵ *Toronto is the most recent of many deliberate attacks involving vehicles*, *USA TODAY*, Apr. 23, 2018 (10 dead in Toronto attack, 14 dead in Barcelona, Spain, 8 on London Bridge, 12 in Berlin, Germany) (10 dead); *Nice attack: Trial for Bastille Day massacre which killed 86 begins*, *BBC*, Sep. 5, 2022 (86 dead); *Australian who rammed and killed six pedestrians jailed for life*, *REUTERS*, Feb. 21, 2019 (6 dead); Alex Johnson, *A Short History of Vehicles Being Used as Deadly Weapons*, *NBC News*, Jul. 15, 2016 (8 dead).

³²⁶ Andrew Higgins and Kimiko De Freytas-Tamura, *In Brussels Bombing Plot, a Trail of Dots Not Connected*, *NEW YORK TIMES*, March 26, 2016 (33 dead); Sylvia Hui, *Bomber’s brother gets 55 years for Manchester concert attack*, *Associated Press*, Aug. 20, 2020 (22 dead).

³²⁷ Jason Van Rassel, *Police officer’s son charged in city’s worst mass murder*, *CALGARY [Alberta] HERALD*, Apr. 17, 2014 (5 dead); Jonathan Pearlman, *Eight Children Murdered In Mass Stabbing In Australia*, [U.K.] *TELEGRAPH*, Dec. 19, 2014 (8 dead); Robert Foyle Hunwick, *Why Does China Have So Many School Stabbings?*, *New Republic*, Nov. 2, 2018 (summarizing 14 knife mass murders in two incidents); David Mercer, *Canada mass stabbing: Trudeau urges public to ‘be careful’ over two men suspected of killing 10 people*, *SKY NEWS*, Sep. 5, 2022 (10 dead).

³²⁸ Jamelle Wells, *Robert Xie Trial: Lin Family ‘Murdered With Hammer Bought From \$2 Shop*, *ABC [Australia]*, May 12, 2014 (5 dead).

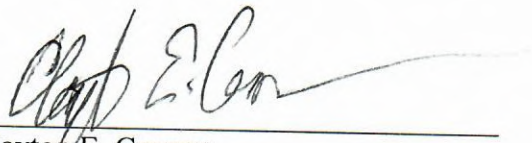
³²⁹ *Japan marks 25 years since deadly Aum sarin attack on Tokyo subway*, *Japan Times*, Mar. 20, 2020 (14 dead).

³³⁰ *Gunman’s Rampage in France Leaves 14 Dead*, *Los Angeles Times*, Jul. 13, 1989; *Teen-Age Gunman Kills Himself and 12 Others in France*, *New York Times*, Sep. 25, 1995; Nick Caistor, *Profile of a Teenage Killer*, *BBC News*, Apr. 28, 2002; *18 Dead in German School Shooting*, *BBC News*, Apr. 26, 2002; *Brazil School Shooting: Twelfth Child Dies*, *SkyNews*, Apr. 8, 2011; James Graff, *Politics Under the Gun*, *Time*, Mar. 31, 2002 (8 dead; 18 wounded in France); *Safety Council To Investigate Gun Laws, DutchNews.nl*, Apr. 12, 2011, http://www.dutchnews.nl/news/archives/2011/04/safety_council_to_investigate.php, last accessed May 21, 2011; *Schutter was al eerder suidaal*, *NOS Nieuws*, Apr. 10, 2011, <http://nos.nl/artikel/232127-schutter-was-al-eerder-suidaal.html>, last accessed May 21, 2011.

As long as we as a society focus on *methods* rather than *causes*, we are engaged in unneeded polarization while still not solving the problem.

Clayton E. Cramer

As long as we as a society focus on *methods* rather than *causes*, we are engaged in unneeded polarization while still not solving the problem.



Clayton E. Cramer

EXHIBIT A

Clayton E. Cramer
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EDUCATION:

	Sonoma State University, Rohnert Park, California
June, 1998	M.A. in History <i>Master's Thesis:</i> "Concealed Weapon Laws of the Early Republic"
June, 1994	B.A. in History <i>Honors: cum laude</i> and With Distinction

AWARDS:

1993	Association for Education in Journalism and Mass Communication Ethics Prize First Place, Undergraduate Division
------	---

TEACHING EXPERIENCE:

Fall, 2020 - present	Adjunct Faculty: College of Western Idaho, Nampa, teaching Western Civilization I, U.S. History I.
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Western Idaho, Nampa, teaching **Western Civilization I, U.S.
History I.**

ical Institute, Boise, teaching **State and Local Government** and
Introduction to Computers.

University, teaching **U.S. Constitutional History** and at George
Fox University (Boise Center), teaching **America and the
World.**

1 Professor Peter Mellini in his course "Twentieth Century World."
I graded quizzes, exams, and answered weekly written questions
from students. I also prepared and lectured about the rise of
totalitarianism in the period between the world wars.

BOOKS:

Social Conservatism in An Age of Revolution: Legislating Christian Morality in Revolutionary America
CreateSpace, 2016

Historical Evidence Concerning Climate Change: Archaeological and Historical Evidence That Man Is Not the Cause
CreateSpace, 2016

My Brother Ron: A Personal and Social History of the Deinstitutionalization of the Mentally Ill
CreateSpace, 2012

Armed America: The Remarkable Story of How and Why Guns Became as American as Apple Pie
Nelson Current, 2006

Concealed Weapon Laws of the Early Republic: Dueling, Southern Violence, and Moral Reform
Praeger Press, 1999

Black Demographic Data, 1790-1860: A Sourcebook
Greenwood Press, 1997

Firing Back: Defending Your Right to Keep and Bear Arms
Krause Publishing, 1995

For The Defense of Themselves and the State: The Original Intent and Judicial Interpretation of the Right to Keep and Bear Arms
Praeger Press, 1994

By The Dim and Flaring Lamps: The Civil War Diary of Samuel McIlvaine, editor
Library Research Associates, Inc., 1990

SELECTED PUBLICATIONS:

“Assaulty Weapon Bans: Can They Survive Rational Basis Scrutiny?” *University of Akron ConLawNow* 8:issue 1, article 1.

Co-authored with David B. Kopel and Joseph Olson, "Knives and the Second Amendment," *University of Michigan Journal of Legal Reform*, 47:1 167-215 (2013).

“Mental Illness and the Second Amendment,” 46 *Conn. Law Review* 4:1301 (2014).

Co-authored with David B. Kopel, “State Court Standards of Review for the Right to Keep and Bear Arms,” 50 *Santa Clara Law Review* 101-208 (2010).

Co-authored with David B. Kopel, "The Keystone of the Second Amendment: Quakers, the Pennsylvania Constitution, and the Questionable Scholarship of Nathan Kozuskanich," 19 *Widener Law Journal* 277-320 (2010).

Co-authored with Nicholas J. Johnson and George A. Mocsary, “‘This Right is Not Allowed by Governments that are Afraid of the People’: The Public Meaning of the Second Amendment When the Fourteenth Amendment was Ratified,” 17 *George Mason Law Review* 3:823-862 (2010).

Co-authored with Don B. Kates, “Second Amendment Limitations and Criminological Considerations,” 61 *Hastings Law Journal* 1339-1370 (2009).

Co-authored with Joseph Edward Olson, “Gun Control: Political Fears Trump Crime Control,” *Maine Law Review*, 61:1 [2009] 57-81

Co-authored with Joseph Edward Olson, "What Did "Bear Arms" Mean in the Second Amendment?" *Georgetown Journal of Law & Public Policy*, 6:2 [2008]

Co-authored with Joseph Edward Olson, "Pistols, Crime, and Public Safety in Early America." *Willamette Law Review*, 44, [2008]

“Why Footnotes Matter: Checking *Arming America's* Claims.” *Plagiary* 2006 1 (11): 1-31 [29 September 2006]

“Michael Bellesiles and Guns in the Early Republic.” *Ideas on Liberty* 52:9 [September, 2002] 17-22.

“The Peaceable Kingdom?” *Books & Culture: A Christian Review*, July/August 2002, 29.

“Confiscating Guns From America’s Past.” *Ideas on Liberty* 51:1 [January, 2001] 23-27.

“Disarming Errors.” *National Review*, October 9, 2000, 54-55.

“An American Coup d'Etat?” *History Today* [November, 1995].

“A Tale of Three Cities: The Right to Bear Arms in State Supreme Courts.” *Temple Law Review* 68:3 [Fall, 1995] 1178-1241. Co-authored with David Kopel and Scott Hatstrup.

“‘Shall Issue’: The New Wave of Concealed Handgun Permit Laws.” *Tennessee Law Review* 62:3 [Spring, 1995] 679-757.

“The Racist Roots of Gun Control.” *Kansas Journal of Law & Public Policy* 4:2 [Winter, 1995] 17-25.

“Ethical Problems of Mass Murder Coverage in the Mass Media.” *Journal of Mass Media Ethics* 9:1 [Winter, 1993-94] 26-42.

A comprehensive list of popular magazine articles would run to many pages; for a complete list see <http://www.claytoncramer.com/popular/popularmagazines.htm>.

CONFERENCES & EXPERT TESTIMONY:

Ohio State Senate Judiciary Committee, March 22, 1995.

Michigan House of Representatives Judiciary Committee, December 5, 1995

American Society of Criminology, San Diego, Cal., November, 1997. “Fear And Loathing In Whitehall: Bolshevism And The Firearms Act Of 1920.”

American Society of Criminology, Chicago, Ill., November, 2002. “The Duty to be Armed in Colonial America.”

Assisted in research and writing of Respondent’s Brief and Academics for the Second Amendment and Claremont Institute amicus briefs for *D.C. v. Heller* (2008).

Panelist on “Up in Arms: The Second Amendment in the Modern Republic” University of Connecticut School of Law, November 15, 2013.

WORKS CITED IN COURT DECISIONS:

“‘Shall Issue’: The New Wave of Concealed Handgun Permit Laws,” cited in *Pagel v. Franscell*, 57 P.3d 1226, 1234 (Wyo. 2002); *Moody v. ARC of Howard County, Inc.*, Civil No. JKB-09-3228 (D.Md. 2011).

“‘This Right is Not Allowed by Governments that are Afraid of the People’,” cited in *McDonald v. Chicago* (2010); *Ezell v. City of Chicago* (7th Cir. 2011).

“Second Amendment Limitations and Criminological Considerations” cited in *U.S. v. Yancey*, 09-1138 (7th Cir. 2010); *U.S. v. Chester*, 628 F.3d 673 (4th Cir. 2010); *U.S. v. Skoien*, 587 F.3d 803 (7th Cir. 2009).

“What Did ‘Bear Arms’ Mean in the Second Amendment?”, cited in *D.C. v. Heller* (2008). In addition, significant parts of Justice Scalia’s opinion are derived from amicus briefs that I helped to research and write.

For the Defense of Themselves and the State, cited in *Mosby v. Devine*, 851 A.2d 1031, 1052 (RI 2004) (Flanders, J., dissenting); *U.S. v. Emerson*, 46 F.Supp.2d 598 (N.D.Texas 1999); *State v. Sieyes* 225 P. 3d 995 (Wash. 2010).

“A Tale of Three Cities,” cited in *State v. Mendoza*, 920 P.2d 357, 360 n. 4 (Hawaii 1996).

Concealed Weapon Laws of the Early Republic, cited in *Senna v. Florimont*, 958 A.2d 427, 433 (N.J. 2008).

“Mental Illness and the Second Amendment,” cited in *In Rec EC* (N.J.App. 2015).

A comprehensive and up to date list can be found at <http://claytoncramer.com/scholarly/journals.htm#citations>.

LANGUAGES:

Very basic reading competence in German.

OTHER SKILLS:

I have 35 years of experience as a computer software engineer, including embedded telecommunications equipment development, web page creation and maintenance. I also have an unusually

detailed knowledge of the physical sciences (for an historian), a deep interest in the history of science and technology, and how both influence society.

Exhibit
0002

Clayton Cramer.

Conservative. Idaho. Software engineer. Historian. Trying to prevent *Idiocracy* from becoming a documentary.

Email complaints/requests about copyright infringement to clayton@claytoncramer.com. Reminder: the last copyright troll that bothered me went bankrupt.

"And we know that all things work together for good to them that love God, to them who are the called according to his purpose." -- Rom. 8:28

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Tuesday, April 2, 2019

A Major Victory in California

[Duncan v. Becerra, \(S.D.Cal. 2019\)](#) struck down California's large capacity magazine ban for violating the Second Amendment. It points to examples where victims with large capacity magazines successfully used them against multiple attackers and one where the victim had a low capacity magazine, and the other hand using a cellphone to call 911. I've never been trained on how to change magazines without a free hand: have you? A number of nice touches:

Individual liberty and freedom are not outmoded concepts. "The judiciary is — and is often the only — protector of individual rights that are at the heart of our democracy." -- Senator Ted Kennedy, Senate Hearing on the Nomination of Robert Bork, 1987.

The decision points to how rare mass murders are relative to other crimes:

Who has not heard about the Newtown, Connecticut, mass shooting at Sandy Hook Elementary School, or the one at a high school in Parkland, Florida? But an individual victim gets little, if any, media attention, and the attention he or she gets is local and short-lived. For example, who has heard about the home invasion attack on Melinda Herman and her twin nine-year old daughters in Georgia only one month after the Sandy Hook incident?15 Who has heard of the attacks on Ms. Zhu Chen or Ms. Gonzalez and her husband?16 Are the lives of these victims worth any less than those lost in a mass shooting? Would their deaths be any less tragic? Unless there are a lot of individual victims together, the tragedy goes largely unnoticed.

And this little dig:

The magazine ban admits no exceptions, beyond those for law enforcement officers, armored truck guards, and movie stars.

Quoting a decision calling a 10 round limit only a minor burden because there are other options:

Accordingly, a prohibition on possession of magazines having a capacity to accept more than ten rounds applies only the most minor burden on the Second Amendment."). But describing as minor, the burden on responsible, law-abiding citizens who may not possess a 15-round magazine for self defense because there are other arms permitted with 10 or fewer rounds, is like saying that when government closes a Mormon church it is a minor burden because next door there is a Baptist church or a Hindu temple.

Of course the 9th Circuit will hear the appeal, but Judge Reinhardt has recently been demoted to Hell, so who knows? A great victory from my friend [Chuck Michel](#). The deeper I read, the more impressed I get. On appeal, California's argument is going to be reduced to "It's not fair!"

Posted by [Clayton Cramer](#) at 3:43 PM



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Tuesday, May 22, 2012

Would You Like To Kill "May-Issue" Concealed Weapon Permit Laws?

I need six to ten activists willing to commit about three to four hours each to help with a research project. This is in support of an amicus brief that our experts believe is likely to reach the U.S. Supreme Court. My take is that the particular fact pattern and law being challenged makes this an exceptionally strong case for striking down "may-issue" concealed weapon permit laws in the few benighted states that have not yet gone "shall-issue." If I sounds like I am a little too sure of myself: remember, *D.C. v. Heller* (2008) and *McDonald v. Chicago* (2010) both cite my work, and I was an active participant with the malcontents that won those suits.

While preparing my part of this brief, I found a body of evidence that is relatively large, but will enable us to demolish the arguments advanced in support of "may-issue" laws. However: it's a lot of data, and I need some activists interested in spending some time Googling (and ideally, using Nexis if you have access to it) for some specific information. You will not need any specialized knowledge to do this; I can explain what we need, and how to do it, quite quickly. I would like to have everyone get this done by the end of Memorial Day weekend.

This will be a freestanding paper, which the amicus brief will reference because it would otherwise make the brief too long. Everyone who assists on this freestanding paper will be credited as research associates.

For obvious reasons, I am not going to explain what you will be doing in a public forum. Please email me at *Firstname* at *FirstnameLastname.com*, and tell me something that shows me you are a serious gun rights person, and not part of the enemy camp.

Posted by [Clayton Cramer](#) at 10:28 PM



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Friday, March 4, 2016

Headed to 1919

NRA is paying me to time travel to 1919 North Carolina! It's ugly there, but finding truth has its risks.

Posted by [Clayton Cramer](#) at 12:47 PM



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Tuesday, December 8, 2015

Shocking: the LA. Times is Editorializing Against Obama's No-Fly List

Dec. 7, 2015 *Los Angeles Times*:

How certain is it that the people on the two lists are dangerous? Well, we don't really know, because the no-fly-list and the broader watch list are government secrets. People are not notified when they are put on, nor why, and they usually don't discover they have been branded suspected terrorists until they try to travel somewhere.

But serious flaws in the list have been identified. According to the American Civil Liberties Union, which is suing the government over the no-fly list, the two lists include thousands of names that have been added in error, as well as the names of family members of suspected terrorists. The no-fly list has also been used to deny boarding passes to people who only share a name with a suspected terrorist. Former Sen. Ted Kennedy (D-Mass.) was famously questioned at airports in 2004 because a terror suspect had used the alias "T. Kennedy." It took the senator's office three weeks to get his name cleared.

What's more, it's not clear how much impact Feinstein's law would have. The broader watch list, which is actually a database maintained by the FBI's Terrorist Screening Center, apparently had about 480,000 names on it in 2011, according to the FBI, and it has since swelled to about 1.1 million names, according to the ACLU. Of those, the vast majority are noncitizens living overseas; the number of American citizens on the list is believed to be fewer than 10,000 people.

That's important because federal law already bars gun sales to most people who are not U.S. citizens or lawful permanent residents or holders of valid visas, which means the vast majority of the people on the suspected terror list would already be barred from buying a firearm in the U.S. even without Feinstein's law. That leaves us with about 10,000 American citizens (and some legal residents) who, under the proposed law, would be barred from exercising a constitutional right. That gives us pause.

From reading the comments it is clear that many progressives regard Gitmo as sufficient reason to ignore due process along with the vast majority of Democrats who voted for this harebrained scheme of Feinstein's. The more I read of these progressive comments justifying "unorthodox procedures" in time of war, the more I am glad I have 10,000 rounds stockpiled.

Posted by [Clayton Cramer](#) at 3:10 PM



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**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY**

ASSOCIATION OF NEW JERSEY RIFLE & PISTOL CLUBS, INC., et al., Plaintiffs, v. PLATKIN, et al., Defendants.	Civil Action No. 3:18-cv-10507
CHEESEMAM, et al., Plaintiffs, v. PLATKIN, et al., Defendants.	Civil Action No. 1:22-cv-4360
ELLMAN, et al., Plaintiffs, v. PLATKIN, et al., Defendants.	Civil Action No. 3:22-cv-04397

Expert Report of Saul Cornell

**Exhibit
0006**

I. INTRODUCTION

I have been asked by the Office of the Attorney General for the State of New Jersey to provide an expert opinion on the history of firearms regulation in the Anglo-American legal tradition, with a particular focus on how the Founding era understood the right to bear arms, as well as the understanding of the right to bear arms held at the time of the ratification of the Fourteenth Amendment to the United States Constitution. In *New York State Rifle & Pistol Association, Inc. v. Bruen*, the U.S. Supreme Court underscored that text, history, and tradition are the foundation of modern Second Amendment jurisprudence. This modality of constitutional analysis requires that courts analyze history and evaluate the connections between modern gun laws and earlier approaches to firearms regulation in the American past. I have also been asked to evaluate the statute at issue in this case, particularly regarding its connection to the tradition of firearms regulation in American legal history.

II. BACKGROUND AND QUALIFICATIONS

I received my BA from Amherst College and MA and PhD from the University of Pennsylvania. I currently hold the Paul and Diane Guenther Chair in American History at Fordham University. The Guenther Chair is one of three endowed chairs in the history department at Fordham and the only one in American History. In addition to teaching constitutional history at Fordham University to undergraduates and graduate students, I teach constitutional law at Fordham Law School. I have been a Senior Visiting research scholar on the faculty of Yale Law School, the University of Connecticut Law School, and Benjamin Cardozo Law School. I have given invited lectures, presented papers at faculty workshops, and participated in conferences on the topic of the Second Amendment and the history of gun regulation at Yale Law School, Harvard Law School, Stanford Law School, UCLA Law School, the University of Pennsylvania Law

School, Columbia Law School, Duke Law School, Pembroke College Oxford, Robinson College, Cambridge, Leiden University, and McGill University.¹

My writings on the Second Amendment and gun regulation have been widely cited by state and federal courts, including the majority and dissenting opinions in *Bruen*.² My scholarship on this topic has appeared in leading law reviews and top peer-reviewed legal history journals. I authored the chapter on the right to bear arms in *The Oxford Handbook of the U.S. Constitution* and co-authored the chapter in *The Cambridge History of Law in America* on the Founding era and the Marshall Court, the period that includes the adoption of the Constitution and the Second Amendment.³ Thus, my expertise not only includes the history of gun regulation and the right to keep and bear arms, but also extends to American legal and constitutional history broadly defined. I have provided expert witness testimony in *Rocky Mountain Gun Owners v. Hickenlooper*, No. 14-cv-02850 (D. Colo.); *Chambers v. City of Boulder*, No. 2018-cv-30581 (Colo. D. Ct., Boulder Cty.); *Zeleny v. Newsom*, No. 14-cv-02850 (N.D. Cal.); *Miller v. Smith*, No. 2018-cv-3085 (C.D. Ill.); *Jones v. Bonta*, 3:19-cv-01226 (S.D. Cal.); *Baird v. Bonta*, No. 2:19-cv-00617 (E.D. Cal.); *Worth v. Harrington*, No. 21-cv-1348 (D. Minn.); *Miller v. Bonta*, No. 3:19-cv-01537 (S.D. Cal.); and *Duncan v. Bonta*, No. 3:17-cv-01017 (S.D. Cal.); *Renna v. Bonta*, No. 20-cv-2190 (S.D. Cal.); *Boland v. Bonta*, No. 8:22-cv-1421 (C.D. Cal.); *Rupp v. Bonta*, No. 8:17-cv-746

¹ For a full *curriculum vitae* listing relevant invited and scholarly presentations, see Exhibit 1.

² *N.Y. State Rifle & Pistol Ass’n v. Bruen*, 142 S. Ct. 2111 (2022).

³ Saul Cornell, *The Right to Bear Arms*, in *THE OXFORD HANDBOOK OF THE U.S. CONSTITUTION* 739–759 (Mark Tushnet, Sanford Levinson & Mark Graber eds., 2015); Saul Cornell & Gerald Leonard, *Chapter 15: The Consolidation of the Early Federal System*, in 1 *THE CAMBRIDGE HISTORY OF LAW IN AMERICA* 518–544 (Christopher Tomlins & Michael Grossberg eds., 2008).

(C.D. Cal.); *B&L Productions, Inc. v. Newsom*, No. 21-cv-1718 (S.D. Cal.); *NAGR v. Campbell*, No. 1:22-cv-11431 (D. Mass.); *NAGR v. Lamont*, No. 3:22-cv-0118 (D. Conn.); *NAGR v. Lopez*, No. 1:22-cv-404 (D. Haw.); *Rhode Island v. Ortiz*, No. 19-0672AG (R.I. Super.); *Nastri v. Dykes*, No. 3:23-cv-00056 (D. Conn.)

I am being compensated for services performed in the above-entitled case at an hourly rate of \$750 for reviewing materials, participating in meetings, and preparing reports; \$1000 per hour for depositions and court appearances. My compensation is not contingent on the results of my analysis or the substance of any testimony.

III. SUMMARY OF OPINIONS

Understanding text, history, and tradition requires a sophisticated grasp of historical context. One must canvass the relevant primary sources, secondary literature, and jurisprudence to arrive at an understanding of the scope of permissible regulation consistent with the Second Amendment's original understanding. It is impossible to understand the meaning and scope of Second Amendment protections without understanding the way Americans in the Founding era approached legal questions and rights.

In contrast to most modern lawyers, the members of the First Congress who wrote the words of the Second Amendment and the American people who enacted the text into law were well schooled in English common law ideas. Not every feature of English common law survived the American Revolution, but there were important continuities between English law and the common law in America.⁴ Each of the new states, either by statute or judicial decision, adopted multiple

⁴ William B. Stoebuck, *Reception of English Common Law in the American Colonies*, 10 WM. & MARY L. REV. 393 (1968); MD. CONST. OF 1776, DECLARATION OF RIGHTS, art. III, § 1; Lauren Benton & Kathryn Walker, *Law for the Empire: The Common Law in Colonial America and the Problem of Legal Diversity*, 89 CHI.-KENT L. REV. 937 (2014).

aspects of the common law, focusing primarily on those features of English law that had been in effect in the English colonies for generations.⁵

The concept of the peace was central to common law.⁶ As one early American justice of the peace manual noted: “the term peace, denotes the condition of the body politic in which no person suffers, or has just cause to fear any injury.”⁷ Blackstone, a leading source of early American views about English law, opined that the common law “hath ever had a special care and regard for the conservation of the peace; for peace is the very end and foundation of civil society.”⁸ The use of Blackstone as an authority on how early Americans understood their inheritance from England has been reiterated by the Supreme Court.⁹ Thus, the dominant understanding of the Second Amendment and its state constitutional analogues at the time of their adoption in the Founding period forged an indissoluble link between the right to keep and bear arms with the goal of preserving the peace.¹⁰

⁵ 9 STATUTES AT LARGE OF PENNSYLVANIA 29-30 (Mitchell & Flanders eds. 1903); FRANCOIS XAVIER MARTIN, A COLLECTION OF STATUTES OF THE PARLIAMENT OF ENGLAND IN FORCE IN THE STATE OF NORTH-CAROLINA 60–61 (Newbern, 1792); *Commonwealth v. Leach*, 1 Mass. 59 (1804).

⁶ LAURA F. EDWARDS, *THE PEOPLE AND THEIR PEACE: LEGAL CULTURE AND THE TRANSFORMATION OF INEQUALITY IN THE POST-REVOLUTIONARY SOUTH* (University of North Carolina Press, 2009).

⁷ JOSEPH BACKUS, *THE JUSTICE OF THE PEACE* 23 (1816).

⁸ 1 WILLIAM BLACKSTONE, *COMMENTARIES* *349.

⁹ *N.Y. State Rifle & Pistol Ass’n v. Bruen*, 142 S. Ct. 2111 (2022).; *District of Columbia v. Heller*, 554 U.S. 570, 626–627 (2008), and n. 26. Blackstone and Hawkins, two of the most influential English legal writers consulted by the Founding generation, described these types of limits in slightly different terms. The two different formulations related to weapons described as dangerous and unusual in one case and sometimes as dangerous or unusual in the other instance, see Saul Cornell, *The Right to Carry Firearms Outside of the Home: Separating Historical Myths from Historical Realities*, 39 FORDHAM URB. L.J. 1695134 (2012). The phrase was an example of the archaic grammatical and rhetorical form hendiadys; see Samuel Bray, ‘Necessary AND Proper’ and ‘Cruel AND Unusual’: *Hendiadys in the Constitution*, 102 VIRGINIA L. REV. 687 (2016). The proper rendering of the term thus becomes “unusually dangerous.”

¹⁰ On Founding-era conceptions of liberty, see JOHN J. ZUBLY, *THE LAW OF LIBERTY* (1775). The modern terminology to describe this concept is “ordered liberty.” See *Palko v. Connecticut*, 302 U.S. 319, 325 (1937). For a more recent elaboration of the concept, see generally

The most basic right of all at the time of Founding was the right of the people to regulate their own internal police. Although modern lawyers and jurists are accustomed to thinking of state police power, the Founding generation viewed this concept as a right, not a power.¹¹ The first state constitutions clearly articulated such a right — including it alongside more familiar rights such as the right to bear arms.¹² Pennsylvania’s Constitution framed this estimable right succinctly: “That the people of this State have the sole, exclusive and inherent right of governing and regulating the internal police of the same.” The term police encompassed more than law enforcement, it also included the right of the people to legislate for the common good.¹³

Thus, any argument that rights must be understood as they were at the time of founding, such as the right to bear arms, must also apply to the scope of the right of the people to regulate their internal police by enacting laws to promote the security and welfare of the people. The history of regulation, including guns, in the decades after the right to bear arms was codified in both the first state constitutions and the federal bill of rights underscores this important point about the scope of legislative authority in this area.

In the years following the adoption of the Second Amendment and its state analogues, firearm regulation increased. Indeed, the people of the individual states exercised their right to regulate to address longstanding issues and novel problems created by firearms in American

JAMES E. FLEMING & LINDA C. MCCLAIN, ORDERED LIBERTY: RIGHTS, RESPONSIBILITIES, AND VIRTUES (Harvard University Press, 2013). On Justice Cardozo and the ideal of ordered liberty, see *Palko v. Connecticut*, 302 U.S. 319, 325 (1937); John T. Noonan, Jr., *Ordered Liberty: Cardozo and the Constitution*, 1 CARDOZO L. REV. 257 (1979); Jud Campbell, *Judicial Review, and the Enumeration of Rights*, 15 GEO. J.L. & PUB. POL’Y 569 (2017).

¹¹ On the transformation of the Founding era’s ideas about a “police right” into the more familiar concept of “police power,” See generally Aaron T. Knapp, *The Judicialization of Police*, 2 CRITICAL ANALYSIS OF L. 64 (2015); Christopher Tomlins, *Necessities of State: Police, Sovereignty, and the Constitution*, 20 J. OF POL’Y HIST. 47 (2008).

¹² PA. CONST. of 1776, ch. I, art. III; MD. DECLARATION OF RIGHTS, art. IV (1776); N.C. DECLARATION OF RIGHTS, art. I, § 3 (1776); and VT. DECLARATION OF RIGHTS, art. V (1777).

¹³ Markus Dirk Dubber, *The Police Power: Patriarchy and the Foundations of American Government* (2005); Gary Gerstle, *Liberty and Coercion: The Paradox of American Government, From the Founding to the Present* (Princeton Univ. Press, 2015).

society. Over the eighteenth and nineteenth century, American regulation increased with the advancement of firearm technology, from the manufacturing, storage, and sale of gunpowder, to regulating where firearms and other dangerous weapons cannot be carried. The response of states to the emergence of new firearms that threatened the peace was more regulation. When faced with changes in technology and consumer behavior, as well as novel threats to public safety, the individual states enacted laws to address these problems. In every instance apart from a few outlier cases in the Antebellum South, courts upheld such limits on the unfettered exercise of the right to keep and bear arms. The primary limit identified by courts in evaluating such laws was the threshold question about infringement: whether the law negated the ability to act in self-defense.¹⁴ In keeping with the clear imperative hard-wired into the Second Amendment, states singled out weapons that posed a particular danger for regulation or prohibition. Responding in this fashion was entirely consistent with Founding-era conceptions of ordered liberty and the Second Amendment. The Founding generation and their successors sought to create a well-regulated society in which ordered liberty, not anarchy prevailed.¹⁵

IV. The Right to Keep and Bear Arms in Historical Context: Liberty and Regulation in Founding Era Constitutional Thought.

A. The Difficulty of a Historical Inquiry In This Context

The United States Supreme Court's decisions in *Heller*, *McDonald*,¹⁶ and *Bruen* have directed courts to look to text, history, and tradition when evaluating the scope of permissible firearms regulation under the Second Amendment. Legal texts must not be read in a

¹⁴ On southern gun rights exceptionalism, see Eric M. Ruben & Saul Cornell, *Firearms Regionalism and Public Carry: Placing Southern Antebellum Case Law in Context*, 125 YALE L.J. F. 121, 128 (2015).

¹⁵ Joseph Postell, *Regulation During the American Founding: Achieving Liberalism and Republicanism*, 5 AM. POL. THOUGHT 80 (2016) (examining the importance of regulation to Founding political and constitutional thought).

¹⁶ *McDonald v. City of Chicago*, 561 U.S. 742 (2010).

decontextualized fashion detached from the web of historical meaning that made them comprehensible to Americans living in the past. Similarly, a mechanistic strategy of digital searching for historical gun laws would be incapable of answering the historical inquiries required under *Bruen*. Instead, understanding the public meaning of constitutional texts requires a solid grasp of the relevant historical contexts—how firearms technology has changed, how consumer demand has waxed and waned, and how the people, acting through their representatives, responded to societal ills created by those changes.¹⁷

In the years between *Heller* and *Bruen*, historical scholarship has expanded our understanding of the history of arms regulation in the Anglo-American legal tradition, but much more work needs to be done to fill out this picture.¹⁸ Indeed, such research is still ongoing and new materials continue to emerge; and even since *Bruen* was decided, additional evidence about the history of regulation has surfaced and new scholarship interpreting it has appeared in leading law reviews and other scholarly venues.¹⁹

Each provision of the Bill of Rights, including the original Second Amendment was a result of interest balancing undertaken by the people themselves in framing the federal Constitution and the Bill of Rights. *Bruen*, 142 S. Ct. at 2131; *Heller*, 554 U.S. at 635. Thus, from its outset, the Second Amendment recognizes both the right to keep and bear arms and the right of the people to

¹⁷ See Jonathan Gienapp, *Historicism and Holism: Failures of Originalist Translation*, 84 FORDHAM L. REV. 935 (2015).

¹⁸ Eric M. Ruben & Darrell A. H. Miller, *Preface: The Second Generation of Second Amendment Law & Policy*, 80 L. & CONTEMP. PROBS. 1 (2017).

¹⁹ *Symposium — The 2nd Amendment at the Supreme Court: “700 Years Of History” and the Modern Effects of Guns in Public*, 55 U.C. DAVIS L. REV. 2495 (2022); NEW HISTORIES OF GUN RIGHTS AND REGULATION: ESSAYS ON THE PLACE OF GUNS IN AMERICAN LAW AND SOCIETY (Joseph Blocher, Jacob D. Charles & Darrell A.H. Miller eds., forthcoming 2023).

regulate arms to promote the goals of preserving a free state. Although rights and regulations are often cast as antithetical in the modern gun debate, the Founding generation saw the two goals as complimentary.

Comparing the language of the Constitution’s first two amendments and their different structures and word choice makes this point crystal clear. The First Amendment prohibits “abridging” the rights it protects. In standard American English in the Founding era, to “abridge” meant to “reduce.” Thus, the First Amendment prohibits a diminishment of the rights it protects. The Second Amendment’s language employs a very different term, requiring that the right to bear arms not be “infringed.”²⁰ In Founding-era American English, the word “infringement” meant to “violate” or “destroy.” In short, when read with the Founding era’s interpretive assumptions and legal definitions in mind, the two Amendments set up radically different frameworks for evaluating the rights they enshrined in constitutional text. Members of the Founding generation would have understood that the legislature could regulate the conduct protected by the Second Amendment and comparable state arms bearing provisions as long as such regulations did not destroy the underlying right. An exclusive focus on rights and a disparagement of regulation is thus antithetical to the plain meaning of the text of the Second Amendment.

John Burn, author of an influential eighteenth-century legal dictionary, illustrated the concept of infringement in the context of his discussion of violations of rights protected by the

²⁰ The distinction emerges clearly in a discussion of natural law and the law of nations in an influential treatise on international law much esteemed by the Founding generation: “Princes who infringe the law of nations, commit as great a crime as private people, who violate the law of nature,” J.J. BURLAMAQUI, *THE PRINCIPLES OF NATURAL LAW* (Thomas Nugent trans., 1753) at 201. This book was among those included in the list of important texts Congress needed to procure, *see* Report on Books for Congress, [23 January] 1783,” *Founders Online*, National Archives, <https://founders.archives.gov/documents/Madison/01-06-02-0031>.

common law. Liberty, according to Burns, was not identical to that “wild and savage liberty” of the state of nature. True freedom, by contrast, only existed when individuals created civil society and enacted laws and regulations that promoted ordered liberty. Regulation was the indispensable correlate of rights in Founding era constitutionalism.²¹

Similarly, Nathan Bailey’s *Dictionarium Britannicum* (1730) defined “abridge” as to “shorten,” while “infringe” was defined as to “break a law.”²² And his 1763 *New Universal Dictionary* repeats the definition of “abridge” as “shorten” and “infringe” as “to break a law, custom, or privilege.”²³ Samuel Johnson’s *Dictionary of the English Language* (1755) defines “infringe” as “to violate; to break laws or contracts” or “to destroy; to hinder.”²⁴ Johnson’s definition of “abridge” was “to shorten” and “to diminish” or “to deprive of.”²⁵ And Noah Webster’s *An American Dictionary of the English Language* (1828) largely repeats Johnson’s definitions of “infringe” and “abridge.”²⁶ Although today the two terms are conflated by some, the meanings of abridge and infringe were and remain distinct. The Founding generation was far more nuanced in distinguishing between the differences between these two terms.

For the framers, ratifiers, and other relevant legal actors in the Founding era, robust regulation was not understood to be an “infringement” of the right to bear arms, but rather the

²¹ *Liberty*, A NEW LAW DICTIONARY (1792) See also, Jud Campbell, *Natural Rights, Positive Rights, and the Right to Keep and Bear Arms*, 83 LAW & CONTEMP. PROBS. 31, 32–33 (2020)

²² *Abridge*, DICTIONARIUM BRITANNICUM (1730).

²³ *Abridge*, NEW UNIVERSAL DICTIONARY (1763).

²⁴ *Infringe*, DICTIONARY OF THE ENGLISH LANGUAGE (1755).

²⁵ *Abridge*, DICTIONARY OF THE ENGLISH LANGUAGE (1755).

²⁶ *Abridge, Infringe*, AN AMERICAN DICTIONARY OF THE ENGLISH LANGUAGE (1828).

necessary foundation for the proper exercise of that right as required by the concept of ordered liberty.²⁷ As one patriotic revolutionary era orator observed, almost a decade after the adoption of the Constitution: “True liberty consists, not in having no government, not in a destitution of all law, but in our having an equal voice in the formation and execution of the laws, according as they effect [sic] our persons and property.”²⁸ By allowing individuals to participate in politics and enact laws aimed at promoting the health, safety, and well-being of the people, liberty flourished.²⁹

The key insight derived from taking the Founding era conception of rights seriously and applying the original understanding of the Founding era’s conception of liberty is the recognition that regulation and liberty are both hard wired into the Amendment’s text. The inclusion of rights guaranteed in constitutional texts was not meant to place them beyond the scope of legislative control. “The point of retaining natural rights,” originalist scholar Jud Campbell reminds us “was not to make certain aspects of natural liberty immune from governmental regulation. Rather, retained natural rights were aspects of natural liberty that could be restricted only with just cause

²⁷ Dan Edelstein, *Early-Modern Rights Regimes: A Genealogy of Revolutionary Rights*, 3 CRITICAL ANALYSIS L. 221, 233–34 (2016). See generally GERALD LEONARD & SAUL CORNELL, THE PARTISAN REPUBLIC: DEMOCRACY, EXCLUSION, AND THE FALL OF THE FOUNDERS’ CONSTITUTION, 1780s–1830s, at 2; Victoria Kahn, *Early Modern Rights Talk*, 13 YALE J.L. & HUMAN. 391 (2001) (discussing how the early modern language of rights incorporated aspects of natural rights and other philosophical traditions).

²⁸ Joseph Russell, *An Oration; Pronounced in Princeton, Massachusetts, on the Anniversary of American Independence, July 4, 1799*, at 7 (July 4, 1799), (text available in the Evans Early American Imprint Collection) (emphasis in original).

²⁹ See generally Quentin Skinner, *Liberty Before Liberalism* (1998) (examining neo-Roman theories of free citizens and how it impacted the development of political theory in England); THE NATURE OF RIGHTS AT THE AMERICAN FOUNDING AND BEYOND (Barry Alan Shain ed., 2007) (discussing how the Founding generation approached rights, including the republican model of protecting rights by representation).

and only with consent of the body politic.”³⁰ Thus, rather than limiting rights, regulation was the essential means of preserving rights, including self-defense.³¹

In fact, without robust regulation of arms, it would have been impossible to implement the Second Amendment and its state analogues. Mustering the militia required keeping track of who had weapons and included the authority to inspect those weapons and fine individuals who failed to store them safely and keep them in good working order.³² The individual states also imposed loyalty oaths, disarming those who refused to take such oaths. No state imposed a similar oath as pre-requisite to the exercise of First Amendment-type liberties.³³ Thus, some forms of prior restraint, impermissible in the case of expressive freedoms protected by the First Amendment or comparable state provisions, were understood by the Founding generation to be perfectly consistent with the constitutional right to keep and bear arms.³⁴ The plain text of the Second Amendment not only protects the right to keep and bear arms, it acknowledges that this right is

³⁰ Jud Campbell, *The Invention of First Amendment Federalism*, 97 TEX. L. REV. 517, 527 (2019) (emphasis in original). See generally Saul Cornell, *Half Cocked: The Persistence of Anachronism and Presentism in the Academic Debate Over the Second Amendment*, 106 J. OF CRIM. L. & CRIMINOLOGY 203, 206 (2016) (noting that the Second Amendment was not understood in terms of the simple dichotomies that have shaped modern debate over the right to bear arms).

³¹ See Jud Campbell, *Judicial Review and the Enumeration of Rights*, 15 GEO. J.L. & PUB. POL’Y 569, 576–77 (2017); SAUL CORNELL, THE POLICE POWER AND THE AUTHORITY TO REGULATE FIREARMS IN EARLY AMERICA 1–2 (2021), https://www.brennancenter.org/sites/default/files/2021-06/Cornell_final.pdf [<https://perma.cc/J6QD-4YXG>] and Joseph Blocher, *Response: Rights as Trumps of What?*, 132 HARV. L. REV. 120, 123 (2019).

³² H. Richard Uviller & William G. Merkel, *The Militia And The Right To Arms, Or, How The Second Amendment Fell Silent* 150 (2002).

³³ Saul Cornell, *Commonplace or Anachronism: The Standard Model, the Second Amendment, and the Problem of History in Contemporary Constitutional Theory*, 16 CONST. COMMENT. 228–30 (1999).

³⁴ *Id.*

designed to encourage the security of a free state. Actions that undermine this security are clearly not protected by the Amendment.

In keeping with the clear public meaning of the Second Amendment's text and comparable state provisions, early American governments enacted laws to preserve the rights of law-abiding citizens to keep and bear arms and encourage the equally vital goal of promoting public safety. The proper metric for deciding if such laws were constitutional was and remains the same today: whether a regulation infringes on the core right protected by the Second Amendment.³⁵

B. Arms And Accoutrements: Taking Founding-Era Texts Seriously

The text of the Second Amendment references arms. In Founding Era American English the term arm did not include “ammunition” or any of the other “accoutrements” essential to militia service. Thus, the claim that, as a matter of history and original meaning, modern large capacity magazines (LCMs) are either lineal descendants or analogs to the Founding era arms protected by the Second Amendment is false. As a matter of history, it is my opinion that these items indisputably do not fall under the Second Amendment's protections. Indeed, the Second Amendment and early American militia laws acknowledge that government had both a compelling interest and ample authority to regulate and proscribe the types of arms, ammunition, and accoutrements that may be purchased in the marketplace. The Founding era term that incorporates all three of these parts of the equipment of a militiaman was “a stand of arms.” The Second Amendment references arms, not “a stand of arms.”³⁶ In his dictionary, Noah Webster

³⁵ Saul Cornell and Nathan DeDino, *A Well Regulated Right: The Early American Origins of Gun Control*, 73 FORDHAM L. REV. 487 (2004).

³⁶ See the relevant entries in Noah Webster, *A DICTIONARY OF THE ENGLISH LANGUAGE* (1832) *s.v.*

defined “a stand of arms as follows: “A stand of *arms* consists of a musket, bayonet, cartridge-box and belt, with a sword. But for common soldiers a sword is not necessary.”³⁷

A search of the phrase “arms and accoutrements” in the Brigham Young University Corpus of Founding Era English, a standard source in any originalist inquiry into constitutional meaning yields close to nine hundred occurrences of these two terms. A computer search of the Founders Online archive, another standard source consulted by originalist scholars also reveals hundreds of uses that underscore the irrefutable fact that arms and accoutrements were two distinct categories of military items.

One need not depend on the methods of corpus linguistics alone to document this basic fact about how “arms,” “ammunition,” and “accoutrements” were typically used in Founding era English. William Duane’s important military dictionary published during the Founding era made it clear that arms and accoutrements were distinct categories of equipage: “Accoutrements, by contrast, refers to equipage, including ‘belts, pouches, and cartridges.’”³⁸ Similarly, ammunition, which was sometimes combined with accoutrements into a single category, was distinct from arms. The definition of ammunition from the Founding period included “all sorts of powder and ball, shells, bullets cartridges, and grape shot.”³⁹

Accoutrements were often listed separately from arms and ammunition. This order from General Washington underscores the seriousness with which the Continental Army scrutinized the condition of Arms, ammunition, and accoutrements in the possession of its soldiers:

Twice a week (Wednesdays and Saturdays) the officers of each company are carefully to inspect the arms, ammunition, and accoutrements of their men, to

³⁷ 1 Encyclopædia Britannica: Or, a Dictionary of Arts, Sciences, and Miscellaneous Literature; Enlarged and Improved (1823) at 673.

³⁸ William Duane, MILITARY DICTIONARY (1810) at 2-3.

³⁹ *Id.*

see that they are in perfect order and that nothing is wanting. At the first inspection they are to take an exact account of every article belonging to each man; and if afterwards any be missing, they are immediately to report the same to the officer commanding their regiment, that the matter may be enquired into, if he judges it proper, by a regimental court martial, and the delinquent punished if deserving it, and charged with the articles lost, to be deducted from his wages.⁴⁰

Further evidence of the importance of the distinction between arms, ammunition, and accoutrements can be gleaned from the range of fines levied for failing to appear at muster adequately armed and accoutered. Persons too indigent to purchase these items were supplied out of the public arms and this included arms, ammunition, and accoutrements.⁴¹

Fines levied by Massachusetts for Deficient Equipment ⁴²

Item	Category	Fine
Musket	Arms	One dollar
Cartridge Box	Ammunition	Thirty Cents
Cartridges	Ammunition	Thirty Cents
Good Powder	Ammunition	Thirty Cents
Flints	Accoutrements	Twenty Cents
Wire Brush	Accoutrements	Twenty Cents

⁴⁰ General Orders, 11 October 1777,” Founders Online, National Archives, <https://founders.archives.gov/documents/Washington/03-11-02-0488>. [Original source: The Papers of George Washington, Revolutionary War Series, vol. 11, 19 August 1777–25 October 1777, ed. Philander D. Chase and Edward G. Lengel. Charlottesville: University Press of Virginia, 2001, pp. 480–482.]

⁴¹ Kevin M. Sweeney, *Firearms Ownership and Militias in Seventeenth and Eighteenth Century England and America*, in *A RIGHT TO BEAR ARMS?: THE CONTESTED ROLE OF HISTORY IN CONTEMPORARY DEBATES ON THE SECOND AMENDMENT* (Jennifer Tucker et al. eds., 2019).

⁴² Revised Statutes of the Commonwealth of Massachusetts Passed November 4, 1835 to which are Subjoined, as Act in Amendment Thereof, and an Act Expressly to Repeal the Acts Which are Consolidated Therein, both Passed in February 1836 (1836) at 120. See also, Acts and Laws of the State of Connecticut, in *America. United States* (1784). “Table of Fines, Forfeitures, and Penalties,” *A Collection of All Such Acts of the General Assembly of Virginia of a Public and Permanent Nature as Have Passed Since the Session of* (1808) at 223.

C. From Muskets To Pistols: Change And Continuity In Early American Firearms Regulations

Guns have been regulated from the dawn of American history.⁴³ At the time *Heller* was decided, there was little scholarship on the history of gun regulation and a paucity of quality scholarship on early American gun culture.⁴⁴ Fortunately, a burgeoning body of scholarship has illuminated both topics, deepening scholarly understanding of the relevant contexts needed to implement *Bruen*.⁴⁵

Anglo-American law venerated the natural right of self-defense but the legal understanding of this doctrine had been shaped by centuries of common law adjudication. The right of self-defense protected by Anglo-American law was not unlimited; it was shaped by the need to preserve human life and promote the peace.⁴⁶ Statutory law, both in England and America functioned to further these inter-related goals. The use of deadly force was extremely limited. At the time of the Second Amendment, retreat, not stand your ground was the legal norm.⁴⁷ Given these indisputable facts the right to keep and bear arms was never understood to prevent government from enacting a broad range of regulations to promote the peace and maintain public safety.⁴⁸ To deny such an authority would be to convert the Constitution into a suicide pact and not a charter

⁴³ Robert J. Spitzer, *Gun Law History in the United States and Second Amendment Rights*, 80 L. & CONTEMP. PROBS. 55 (2017).

⁴⁴ *Id.*

⁴⁵ Ruben & Miller, *supra* note 18, at 1.

⁴⁶ Saul Cornell, *The Right to Keep and Carry Arms in Anglo-American Law: Preserving Liberty and Keeping the Peace*, 80 L. & CONTEMP. PROBS. 11 (2017).

⁴⁷ The three notable exceptions to this principle were the “castle doctrine,” defense against threat when there was no opportunity to escape or seek help, and defense against felonious assault, see the arguments made by John Adams in his defense of the soldiers in the Boston Massacre trial, “Adams’ Argument for the Defense: 3–4 December 1770,” *Founders Online*, National Archives, <https://founders.archives.gov/documents/Adams/05-03-02-0001-0004-0016>. [Original source: *The Adams Papers*, Legal Papers of John Adams, vol. 3, *Cases 63 and 64: The Boston Massacre Trials*, ed. L. Kinvin Wroth and Hiller B. Zobel. Cambridge, MA: Harvard University Press, 1965, pp. 242–270]

⁴⁸ *McDonald*, 561 U.S. at 785 (noting “[s]tate and local experimentation with reasonable firearms regulations will continue under the Second Amendment”).

of government. In keeping with this principle, the Second Amendment and its state analogues were understood to enhance the concept of ordered liberty, not undermine it.⁴⁹

Bruen's methodology requires judges to distinguish between the relevant history necessary to understand early American constitutional texts and a series of myths about guns and regulation that were created by later generations to sell novels, movies, and guns themselves.⁵⁰ Unfortunately, many of these myths continue to cloud legal discussions of American gun policy and Second Amendment jurisprudence.⁵¹

Although it is hard for many modern Americans to grasp, there was no comparable societal ill to the modern gun violence problem for Americans to solve in the era of the Second Amendment. A combination of factors, including the nature of firearms technology and the realities of living life in small, face-to-face, and mostly homogenous rural communities that typified many parts of early America, militated against the development of such a problem. In contrast to modern America, homicide was not the problem that government firearm policy needed to address at the time of the Second Amendment.⁵²

The surviving data from New England is particularly rich and has allowed scholars to formulate a much better understanding of the dynamics of early American gun policy and relate it to early American gun culture.⁵³ Levels of interpersonal gun violence among those of white

⁴⁹ See generally Saul Cornell, *The Long Arc Of Arms Regulation In Public: From Surety To Permitting*, 1328-1928, 55 U.C. DAVIS L. REV. 2547 (2022)

⁵⁰ PAMELA HAAG, *THE GUNNING OF AMERICA: BUSINESS AND THE MAKING OF AMERICAN GUN CULTURE* (2016).

⁵¹ RICHARD SLOTKIN, *GUNFIGHTER NATION: THE MYTH OF THE FRONTIER IN TWENTIETH-CENTURY AMERICA* (1993); JOAN BURBICK, *GUN SHOW NATION: GUN CULTURE AND AMERICAN DEMOCRACY* (2006).

⁵² RANDOLPH ROTH, *AMERICAN HOMICIDE* 56, 315 (2009). Roth's data makes clear that gun violence was not a major problem at the Founding.

⁵³ It is important to recognize that there were profound regional differences in early America. See JACK P. GREENE, *PURSUIITS OF HAPPINESS: THE SOCIAL DEVELOPMENT OF EARLY MODERN BRITISH COLONIES AND THE FORMATION OF AMERICAN CULTURE* (1988). These differences also had important consequences for the evolution of American law. See generally David Thomas Konig, *Regionalism in Early American Law*, in 1 *THE CAMBRIDGE HISTORY OF*

European ancestry in the era of the Second Amendment were relatively low compared to modern America. These low levels of violence among persons of European ancestry contrasted with the high levels of violence involving the almost constant state of war that existed between the tribal populations of the region and their American neighbors.

Limits in Founding-era firearms technology militated against the use of guns as effective tools of interpersonal violence in this period. Eighteenth-century muzzle-loading weapons, especially muskets, took too long to load and were therefore seldom used to commit crimes. Nor was keeping guns loaded a viable option because the black powder used in these weapons was not only corrosive, but it attracted moisture like a sponge. Indeed, the iconic image of rifles and muskets hung over the mantle place in early American homes was not primarily a function of aesthetics or the potent symbolism of the hearth, as many today assume. As historian Roth notes: “black powder’s hygroscopic, it absorbs water, it corrodes your barrel, you can’t keep it loaded. Why do they always show the gun over the fireplace? Because that’s the warmest, driest place in the house.”⁵⁴ Similar problems also limited the utility of muzzle-loading pistols as practical tools for self-defense or criminal offenses. Indeed, at the time of the Second Amendment, over 90% of the weapons owned by Americans were long guns, not pistols.⁵⁵ Simply put, there was not a serious homicide problem looming over debates about the Second Amendment. Nor were guns the primary weapon of choice for those with evil intent during this period.⁵⁶ The skill and time required to load and fire flintlock muzzle loading black powder weapons meant that these types of firearms were less likely to be used in crimes of passion. The preference for storing them unloaded also meant they posed fewer dangers to children from accidental discharge.

LAW IN AMERICA 144 (Michael Grossberg & Christopher Tomlins eds., 2008).

⁵⁴ Randolph Roth, Transcript: *Why is the United States the Most Homicidal in the Affluent World*, NATIONAL INSTITUTE OF JUSTICE (Dec. 1, 2013), <https://nij.ojp.gov/media/video/24061> (last visited June 2, 2023).

⁵⁵ Sweeney, *supra* note 41.

⁵⁶ HAAG, *supra* note 50.

In short, the Founding generation did not confront a gun violence problem similar in nature or scope to the ills that plague modern America. Rather, they faced a different, but no less serious problem: American reluctance to purchase the type of weapons needed to effectively arm their militias. Americans were far better armed than their British ancestors, but the guns most Americans owned and desired were those most useful for life in an agrarian society: fowling pieces and light hunting muskets.⁵⁷ Killing pests and hunting were the main concern of farmers, and their choice of firearm reflected these basic facts of life. Nobody bayoneted turkeys, and pistols were of limited utility for anyone outside of a small elite group of wealthy, powerful, and influential men who needed these weapons if they were forced to face an opponent on the field of honor in a duel, as the tragic fate of Alexander Hamilton so vividly illustrates.⁵⁸

Despite repeated efforts to exhort and legislate to promote this goal, many states were failing to adequately equip the militia with suitable firearms that could withstand the rigors of the type of close-quarters hand-to-hand combat required by the military tactics of the time. A gun had to be able to receive a bayonet and serve as a bludgeon if necessary. The light-weight guns favored by the overwhelmingly rural population of early America were well designed to put food on the table and rid fields of vermin, but were not well suited to eighteenth-century ground wars. In particular, fowling pieces, loaded with shot, not bullets or musket balls were especially useful in a predominantly agrarian society.⁵⁹ When the U.S. government surveyed the state of the militia's preparedness shortly after Jefferson took office in 1800, the problem had not been solved. Although Massachusetts boasted above 80% of its militia armed with military quality weapons, many of the southern states lagged far behind, with Virginia and North Carolina hovering at about less than half the militia properly armed.⁶⁰

⁵⁷ Sweeney, *supra* note 41.

⁵⁸ Joanne B. Freeman, *AFFAIRS OF HONOR: NATIONAL POLITICS IN THE NEW REPUBLIC* (2001).

⁵⁹ Sweeney, *supra* note 41.

⁶⁰ *Id.*

As a result, the government took an active role in encouraging the manufacturing of arms and had a vested interest in determining what types of weapons would be produced. The American firearms industry in its infancy was thus largely dependent on government contracts and subsidies. The industry was also regulated to prevent sub-standard weapons from being sold and from military weapons being diverted from the militia.⁶¹

One important form of government regulation of the firearms industry, a practice that began in the era of the Second Amendment and persisted throughout the nineteenth century included inspection of weapons and Government-imposed safety standards on the firearms industry. Indeed, without such interventions it is likely that the industry would never have survived. The danger posed by defective arms, or poorly manufactured ones could be catastrophic. A burst barrel of a musket or fowling piece could turn a firearm into a pipe bomb, maiming or killing an unfortunate user.

In 1805 Massachusetts enacted a law requiring all guns to be inspected before they could be sold in the Commonwealth.⁶² As stated in the law's preamble, the law's purpose was to prevent harm to residents from the sale of unsafe firearms. The law required the appointment of inspectors, up to two per county, who would "prove," i.e. test and inspect, all musket barrels and pistol barrels. The law detailed the manner in which these inspections were to be conducted, which included testing the firearm to ensure it would not fail and that it could carry a shot over a certain distance. If the firearm passed inspection, then the inspector would stamp it with the inspector's initials and the year onto the barrel so that the stamp could not be erased or disfigured. Only firearms that passed inspection and were stamped could be sold, and the sale of firearms without a stamp was subject to a fine. The standards that all muskets and pistols had to meet to pass inspection were

⁶¹ Lindsay Schakenbach Regele, *A Different Constitutionality for Gun Regulation*, 46 HASTINGS CONST. L.Q. 523, 524 (2019); Andrew J. B. Fagal, *American Arms Manufacturing and the Onset of the War of 1812*, 87 NEW ENG. Q. 526, 526 (2014).

⁶² 1804 Mass. Acts. 111, ch. 81, "An Act to Provide for the Proof of Fire Arms Manufactured Within this Commonwealth."

updated in 1814.⁶³

Maine imposed a similar requirement on firearms in 1821, and continued the practice through the end of the century.⁶⁴ Similar to the Massachusetts proving law, the Maine law required the governor to appoint inspectors of firearms who would then ensure that firearms met certain safety standards and stamped prior to their sale. The Maine and Massachusetts laws persisted throughout the nineteenth century.⁶⁵

The federal armory in Springfield, Massachusetts, began producing muskets in 1794. The presence of the armory served as a spur to innovation among local gun smiths. In fact, this confluence of factors helped Western Massachusetts become the leading small arms producer in America on the eve of the War of 1812. The Springfield armory, a federal entity, was governed by federal law (not Massachusetts law) but it nonetheless extensively scrutinized and inspected all arms made at its facilities and any arms produced by local gunsmiths under government contract. The quality of these weapons, literally being stamped with government approval, made these guns particularly valuable in the civilian arms market when government surplus guns were sold to consumers in times of peace.⁶⁶ Federal weapons not made in Massachusetts were also stamped to discourage theft. In 1776, George Washington ordered all Continental Army firearms stamped

⁶³ 1814 Mass. Acts 464, An Act In Addition To An Act, Entitled “An Act To Provide For The Proof Of Fire Arms, Manufactured Within This Commonwealth,” ch. 192, § 1 (“All musket barrels and pistol barrels, manufactured within this Commonwealth, shall, before the same shall be sold, and before the same shall be stocked, be proved by the person appointed according to the provisions of an act”); § 2 (“That if any person or persons, from and after the passing of this act, shall manufacture, within this Commonwealth, any musket or pistol, or shall sell and deliver, or shall knowingly purchase any musket or pistol, without having the barrels first proved according to the provisions of the first section of this act, marked and stamped according the provisions of the first section of the act.”)

⁶⁴ “An Act to Provide for the Proof of Fire Arms,” 2 Laws State of Maine (1821) at 685-86.

⁶⁵ 1 The General Statutes of the Commonwealth of Massachusetts: Enacted December 28, 1859, to Take Effect June 1, 1860 (2d ed., William A. Richardson & George P. Sanger, eds.) 255 (1873).

⁶⁶ Lindsay Schakenbach Regele, *Manufacturing Advantage: War, The State, And The Origins Of American Industry, 1776–1848* (2019) at 63-65.

with an insignia: “U.S.XIII.” Government marked weapons in this fashion to make it easier to identify cases where arms were being illegally sold in a secondary market to private individuals or sold to person who were not allowed to own firearms.⁶⁷ In 1780, George Washington also ordered that the Continental Army ensure all gun barrels were sufficiently proved to avoid buying poor quality guns.⁶⁸

Stamping and marking firearms aided government efforts to keep track of weapons and enforce manufacturing standards. These types of policies were understood at the time of the Second Amendment and its various state analogs to be perfectly consistent with the right to keep and bear arms.⁶⁹

The market for firearms in early America shared very few features with the contemporary world of firearms commerce. Today’s Americans have a myriad of choices of the type and style of weapon when they wish to acquire a firearm. Gun shows, gun supermarkets, and internet sales are a few of the many ways Americans acquire firearms today. Although estimates vary, it is likely that there are now more guns than people in contemporary America.⁷⁰

Early American firearms production in the era of the Second Amendment, in contrast, was dominated by artisan production.⁷¹ Apart from the wealthiest Americans, most households could not afford to own multiple weapons. Local gun smiths, not big box stores such as Walmart, were responsible for selling most firearms.

⁶⁷ E. Wayne Carp, *To Starve The Army At Pleasure: Continental Army Administration And American Political Culture, 1775-1783* (1984) at 66-67.

⁶⁸ Letter from George Washington to Henry Knox (Nov. 30, 1780), in *The Writings of George Washington from the Original Manuscript Sources 1745-1799* (John C. Fitzpatrick, ed.) (“I think it will be best for you to give orders to the Officer superintending the Laboratory to have the Barrels sufficiently proved before they are delivered to Mr. Buel, as I suspect that they are most of them of the trash kind which Mr. ... Lee charges Mr. Deane[']s Agent with purchasing.”)

⁶⁹ Regele, *supra* note 61.

⁷⁰ Terry L. Schell, Samuel Peterson, Brian G. Vegetabile, Adam Scherling, Rosanna Smart, and Andrew R. Morral, *State-Level Estimates of Household Firearm Ownership*. Santa Monica, CA: RAND Corporation, 2020. <https://www.rand.org/pubs/tools/TL354.html>.

⁷¹ Merritt Roe Smith, *Harpers Ferry Armory and the New Technology: The Challenge of Change* (1977).

Fire Arms ownership in New England During the Era of the Second Amendment, 1770-1798⁷²

Years	% Inventories with firearms	% Inventories with muskets	% Inventories with pistols
1770-1775	51	.9	5
1783-1786	46	.5	2.5
1795-1798	32	1.5	1.5

Most sellers and buyers of firearms in early America were members of the same community. Moreover, given the nature of eighteenth-century firearms technology gun owners needed to maintain an on-going relationship with their local gun smith to keep their guns in good working order. The informal ties of kin and community that defined the close-knit communities of early America meant that individuals were effectively vetted and monitored by their neighbors in ways that share little with the largely anonymous world of modern firearms commerce.⁷³

The calculus of individual self-defense changed dramatically in the decades following the adoption of the Second Amendment.⁷⁴ The early decades of the nineteenth century witnessed a revolution in the production and marketing of guns.⁷⁵ The same technological changes and economic forces that made wooden clocks and other consumer goods such as Currier and Ives prints -- common items in many homes -- also transformed American gun culture.⁷⁶ These same changes also made handguns and a gruesome assortment of deadly knives, including the dreaded Bowie knife, more common. The culmination of this gradual evolution in both firearms and

⁷² Data adapted from Sweeney, *supra* note 41. Probate data does not perfectly correlate with total number of weapons in circulation so these figures must be used with some caution. In some cases, arms were passed on to family members before probate. These numbers do, however, offer a useful way to capture the relative number of different categories of arms owned by the population.

⁷³ Scott Paul Gordon, *The Ambitions of William Henry*, 136 PENNSYLVANIA MAGAZINE OF HISTORY AND BIOGRAPHY 253 (2012). Pennsylvania was one of the main regions of early American gunsmithing. M.L. Brown, *Firearms In Colonial America: The Impact On History And Technology*, 1492-1792 (1980).

⁷⁴ Cornell, *supra* note 3, at 745.

⁷⁵ Lindsay Schakenbach Regele, *Industrial Manifest Destiny: American Firearms Manufacturing and Antebellum Expansion*, 93 BUS. HIST. REV. 57 (2018).

⁷⁶ Sean Wilentz, *Society, Politics, and the Market Revolution*, in THE NEW AMERICAN HISTORY (Eric Foner ed., 1990).

ammunition technology was the development of Samuel Colt's pistols around the time of the Mexican-American War.⁷⁷ Economic transformation was accompanied by a host of profound social changes that gave rise to America's first gun violence crisis. As cheaper, more dependable, and easily concealable handguns proliferated in large numbers, Americans, particularly southerners, began sporting them with alarming regularity. The change in behavior was most noticeable in the case of handguns.⁷⁸

D. The Myth of Founding Era Repeaters

Virtually all firearms in common use in the era of the Second Amendment were single-shot, muzzle-loading black powder weapons. Guns capable of firing more than a single round, repeaters, could best be described as exceedingly rare and exotic. Thus, the claim that firearms capable of firing more than ten rounds without reloading "are nothing new" and the related claim that such weapons were familiar to Americans in the Founding era is deceptive at best. The existence of such weapons did not mean that they were common, nor did it mean that the average American would have understood that such weapons were generally understood to fall within the protection of the Second Amendment. There is no evidence to support such a conclusion.

Moreover, the claim that "repeaters" and other rare weapons were widely believed to be protected by the Second Amendment is not consistent with the originalist framework employed in *Bruen*. An analysis of history, text, and tradition requires a contextually sensitive assessment of what types of weapons were in common use at the time and which weapons were singled out by governments for heightened forms of legal protection or treated simply as property subject to the normal range of regulation.⁷⁹ Thus, the relevant historical question is not what firearms

⁷⁷ William N. Hosley, *Colt: The Making of an American Legend* (1st ed. 1996).

⁷⁸ Cornell, *supra* note 3, at 716.

⁷⁹ Kevin Sweeney and Saul Cornell, *All Guns Are Not Created Equal*, CHRONICLE OF HIGHER EDUCATION, January 28, 2013; Priya Satia, *What Guns Meant in Eighteenth-century Britain* 5 PALGRAVE COMMUN 104 (2019).

technology existed at the time of the Second Amendment. The constitutionally pertinent question is: did the average reader of the Constitution and the first ten amendments understand repeaters to be among those weapons the Second Amendment was intended to protect?⁸⁰

Few if any Americans would have ever encountered these types of weapons and even fewer owned such weapons, an indisputable fact that makes the argument that these types of weapons were encompassed by the Second Amendment highly improbable.⁸¹

The best way to understand the historical importance (or irrelevance) of these weapons is to analyze the discussion of arms in the print culture of the period, paying close attention to how repeating weapons were discussed in newspapers, books, and to a lesser extent private correspondence.⁸² If one consults the standard sources associated with originalist scholarship and jurisprudence the silence is deafening. These types of weapons were rarely mentioned and when they were discussed they were described as rare and “curious.”⁸³ Founding era newspapers often contained advertisements for the sale of firearms. Although one must approach data gained from this type of digital searching with some historical sophistication and caution, the evidence clearly shows that “repeating” weapons were neither common nor readily available in the period between the American Revolution and enactment of the Second Amendment. Given this fact it strains credulity to claim that such weapons were originally understood to be encompassed within the protections afforded by the Second Amendment. During the almost two-decade period between the Declaration of Independence and the adoption of the Second Amendment

⁸⁰ William Baude & Stephen E. Sachs, *Originalism and the Law of the Past*, 37 LAW & HISTORY REVIEW 809-820 (2019).

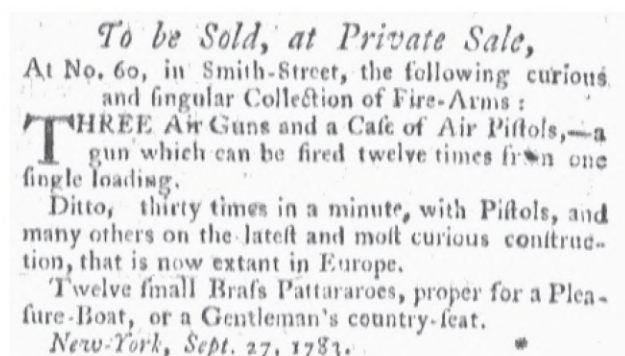
⁸¹ See discussion below *infra* Section IV.D.

⁸² Saul Cornell, *Reading the Constitution, 1787–91: History, Originalism, and Constitutional Meaning* *Id.*, 821–45.

⁸³ See discussion below *infra* Section IV.D.

there were a total of five advertisements for the sale of air rifles in American newspapers.⁸⁴ In the same period there were over four thousand advertisements for the sale of guns of various types, most notably muskets of one type or another. The advertisement reproduced in Figure One below illustrates the exotic nature of these weapons, which were described as “singular” and “curious.”⁸⁵

Figure One⁸⁶



These guns were so rare and expensive that a New York Museum from the period decided to showcase an air gun alongside other curiosities such as mammoth bones and a full-size working guillotine. For an additional fee beyond the price of admission one could purchase an opportunity to fire one these “singular” weapons.⁸⁷

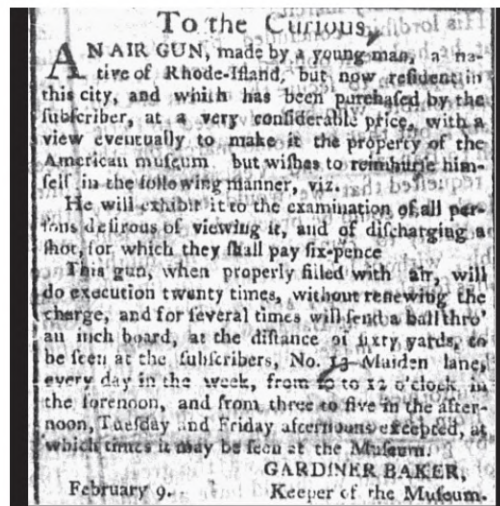
⁸⁴ [New York] Royal Gazette October 1, 1783 at 3; Pennsylvania Packet July 21, 1789 at 3 ; *id.* July 28, at 1; *id.*, July 31 at 1; *id.*, August 13, at 1.

⁸⁵ “To be Sold at Private Sale,” [New York] ROYAL GAZETTE October 1, 1783 at 3

⁸⁶ *Id.*

⁸⁷ Lawrence W. Levine, *Highbrow/Lowbrow* (2009) at 149.

Figure Two ⁸⁸



The notion that the Second Amendment was widely understood to protect weapons that were rarely advertised for sale and that generally recognized to be of a “singular” and “curious” nature is not credible; nor is such a claim consistent with Heller and Bruen’s originalist methodology which requires that texts be interpreted according to their ordinary public meaning in the eighteenth century. Weapons described as “singular and curious” are a poor choice for understanding the ordinary meaning of the term “arms” in Founding era English.

Visitors to today’s NRA’s museum of firearms may be treated to an impressive exhibit featuring the type of Girandoni air rifle that Lewis and Clark carried on their Expedition of Discovery. ⁸⁹ Although modern gun rights advocates and antiquarian firearms enthusiasts are well acquainted with this weapon, few Americans in the era of Lewis and Clark could make a comparable claim. Indeed, in the first published account of the Corps of Discovery’s mission there are less than a handful of references to the air gun carried by Lewis and Clark. The

⁸⁸ “To the Curious,” [New York] DAILY ADVERTISER, February 9, 1792.

⁸⁹ <https://www.nramuseum.org/guns/the-galleries/a-prospering-new-republic-1780-to-1860/case-8-romance-of-the-long-rifle/girandoni-air-rifle-as-used-by-lewis-and-clark.aspx> (last visited on 6/1/23).

primary use of the weapon was not for war, hunting, or individual self-defense, but the weapon was a show piece used to impress the different Indian nations the Corps encountered with the superiority of American technology.⁹⁰ But, few Americans at the time of the Lewis and Clark exhibition would have had the opportunity to ever see one of these weapons or any other repeating gun up close.

Under ideal conditions priming the Girardoni air gun required 1500 strokes of a pump. The Austrian military, one of the few armed forces in the world to purchase these types of weapons, quickly abandoned them because they were ill suited to battle-field conditions. In 1789, an Austrian officer complained that the weapons were of little military value because of the difficulty of using them and their tendency to malfunction:

Due to their construction, these guns were much more difficult to use effectively than normal, as one had to handle them much more cautiously and carefully. In addition, the soldiers using them had to be supervised extremely carefully, as they were unsure about the operation. The guns became inoperable after a very short time—so much so that after a while no more than one-third of them were still in a usable state. We needed the whole winter to repair and replace them.⁹¹

William Duane's popular military dictionary (1810) devoted a short entry to air guns, noting that the gun's performance was so unreliable, "it has long been out of use among military men."⁹²

E. The Police Power And Firearms Regulation

The 1776 Pennsylvania Constitution, the first revolutionary constitution to assert a right to bear arms, preceded the assertion of this right by affirming a more basic rights claim: "That the people of this State have the sole, exclusive and inherent right of governing and regulating the

⁹⁰ 2 History of the Expedition Under the Command of Captains Lewis and Clark...in Two (ed., Paul Allen, 1814) at 136, 28,364. For a discussion of the Corps of Discovery's use of technology to over-awe Indian peoples and impress upon them the superiority of American technology, see James P. Rhonda, LEWIS AND CLARK AMONG THE INDIANS (1984) at 225.

⁹¹ Frederick J. Chiaventone, *The Girardoni Air Rifle: The Lewis and Clark Expedition's Secret Weapon* 14 MILITARY HERITAGE (2015), 19.

⁹² William Duane, A MILITARY DICTIONARY (1810) at 5.

internal police of the same.”⁹³ The phrase “internal police” had already become common, particularly in laws establishing towns and defining the scope of their legislative authority.⁹⁴ By the early nineteenth century, the term “police” was a fixture in American law.⁹⁵ Thus, an 1832 American encyclopedia confidently asserted that police, “in the common acceptance of the word, in the U. States and England, is applied to the municipal rules, institutions and officers provided for maintaining order, cleanliness &c.”⁹⁶ The Founding era’s conception of a basic police right located in legislatures was transmuted during the Marshall Court’s era into the judicial doctrine of the police power and would become a fixture in American law.

The power to regulate firearms and gunpowder has always been central to the police power and historically was shared among states, local municipalities, and the federal government when it was legislating conduct on federal land and in buildings.⁹⁷ The adoption of the Constitution and the Bill of Rights did not deprive states of their police powers. Indeed, if it had, the Constitution would not have been ratified and there would be no Second Amendment today. Ratification was only possible because Federalists offered Anti-Federalists strong assurances that nothing about the new government threatened the traditional scope of the individual state’s police power authority,

⁹³ PA. CONST. OF 1776, Ch. I, art iii.

⁹⁴ For other examples of constitutional language similar to Pennsylvania’s provision, N.C. CONST. OF 1776, DECLARATION OF RIGHTS, art. II; VT. CONST. OF 1777, DECLARATION OF RIGHTS, art. IV. For other examples of this usage, *see* An Act Incorporating the residents residing within limits therein mentioned, *in* 2 NEW YORK LAWS 158 (1785) (establishing the town of Hudson, NY); An Act to incorporate the Town of Marietta, *in* LAWS PASSED IN THE TERRITORY NORTHWEST OF THE RIVER OHIO 29 (1791). For later examples, *see* 1 STATUTES OF THE STATE OF NEW JERSEY 561 (rev. ed. 1847); 1 SUPPLEMENTS TO THE REVISED STATUTES. LAWS OF THE COMMONWEALTH OF MASSACHUSETTS, PASSED SUBSEQUENTLY TO THE REVISED STATUTES: 1836 TO 1849, INCLUSIVE 413 (Theron Metcalf & Luther S. Cushing, eds. 1849).

⁹⁵ ERNST FREUND, THE POLICE POWER: PUBLIC POLICY AND CONSTITUTIONAL RIGHTS 2, n.2 (1904).

⁹⁶ 10 ENCYCLOPEDIA AMERICANA 214 new edition (Francis Lieber ed.).

⁹⁷ Harry N. Scheiber, *State Police Power*, *in* 4 ENCYCLOPEDIA OF THE AMERICAN CONSTITUTION 1744 (Leonard W. Levy et al. eds., 1986).

including the authority to regulate guns and gun powder.⁹⁸

Federalists and Anti-Federalists bitterly disagreed over many legal issues, but this one point of accord was incontrovertible. Brutus, a leading Anti-Federalist, emphatically declared that “[I]t ought to be left to the state governments to provide for the protection and defence [sic] of the citizen against the hand of private violence, and the wrongs done or attempted by individuals to each other”⁹⁹ Federalist Tench Coxe concurred, asserting that: “[t]he states will regulate and administer the criminal law, exclusively of Congress.” States, he assured the American people during ratification, would continue to legislate on all matters related to the police power “such as unlicensed public houses, nuisances, and many other things of the like nature.”¹⁰⁰

State police power authority was at its pinnacle in matters relating to guns or gun powder.¹⁰¹ Every aspect of the manufacture, sale, and storage of gun powder was regulated due to the substance’s dangerous potential to detonate if exposed to fire or heat. Firearms were also subject to a wide range of regulations, including laws pertaining to the manufacture, sale, and storage of weapons.¹⁰²

Thus, Massachusetts enacted a law that prohibited storing a loaded weapon in a home, a firearms safety law that recognized that the unintended discharge of firearms posed a serious threat to life and limb.¹⁰³ New York City even granted broad power to the government to search for gun powder and transfer powder to the public magazine for safe storage:

⁹⁸ Saul Cornell, *THE OTHER FOUNDERS: ANTIFEDERALISM AND THE DISSENTING TRADITION IN AMERICA, 1788-1828* (1999).

⁹⁹ Brutus, *Essays of Brutus VII*, reprinted in 2 *THE COMPLETE ANTIFEDERALIST* 358, 400–05 (Herbert J. Storing ed., 1981).

¹⁰⁰ Tench Coxe, A Freeman, *Pa. Gazette*, Jan. 23, 1788, reprinted in *FRIENDS OF THE CONSTITUTION: WRITINGS OF THE “OTHER” FEDERALISTS* 82 (Colleen A. Sheehan & Gary L. McDowell eds., 1998).

¹⁰¹ Cornell and DeDino, *supra* note 35.

¹⁰² *Id.*

¹⁰³ Act of Mar. 1, 1783, ch. XIII, 1783 Mass. Acts 37, An Act in Addition to the Several Acts Already Made for the Prudent Storage of Gun Powder within the Town of Boston, § 2.

[I]t shall and may be lawful for the mayor or recorder, or any two Alderman of the said city, upon application made by any inhabitant or inhabitants of the said city, and upon his or their making oath of reasonable cause of suspicion (of the sufficiency of which the said mayor or recorder, or Aldermen, is and are to be the judge or judges) to issue his or their warrant or warrants, under his or their hand and seal, or hands and seals for searching for such gun powder, in the day time, in any building or place whatsoever.¹⁰⁴

New Hampshire enacted a law in 1825 penalizing the sale or offer to sell “by retail any gunpowder in any highway, or in any street, lane, or alley, or on any wharf, or on parade or common.”¹⁰⁵

Other examples of state laws delegating authority to local governments to regulate the sale of gunpowder for public safety include but are not limited to:

- a. 1845 Iowa Laws 119, An Act to Incorporate and Establish the City of Dubuque, chap 123, § 12 (delegating authority to cities “to regulate by ordinance the keeping and sale of gunpowder within the city”);
- b. An Act Incorporating the Cities of Hartford, New Haven, New London, Norwich and Middletown, 1836 Conn. Acts 105 (Reg. Sess.), chap. 1, § 20 (delegating authority to “prohibit[] and regulat[e] the bringing in, and conveying out” of gunpowder);
- c. An Act to Reduce the Law Incorporating the City of Madison, and the Several Acts Amendatory thereto Into One Act, and to Amend the Same, 1847 Ind. Acts 93, chap 61, § 8, pt. 4 (delegating authority “[t]o regulate and license, or provide by ordinance for regulating and licensing . . . the keepers of gunpowder”).

The purpose of these gunpowder regulations was to promote public safety. Early American governments recognized the danger posed by gun powder and regulated every aspect of its production, sale, and storage. Early American governments also regulated shooting galleries for

¹⁰⁴ An Act to Prevent the Storing of Gun Powder, within in Certain Parts of New York City, 2 LAWS OF THE STATE OF NEW-YORK, COMPRISING THE CONSTITUTION, AND THE ACTS OF THE LEGISLATURE, SINCE THE REVOLUTION, FROM THE FIRST TO THE FIFTEENTH SESSION, INCLUSIVE at 191-2 (Thomas Greenleaf, ed., 1792).

¹⁰⁵ 1825 N.H. Laws 74, ch. 61, § 5

similar reasons.¹⁰⁶

There were also laws that required the inspection of gunpowder. In 1809, Massachusetts established requirements for the quality and composition of gunpowder; authorized the appointment of inspector. Before being placed in any public magazine gunpowder that passed inspection was placed in a cask and marked with the inspector's initials; gunpowder that was marked condemned or that had not yet passed inspection could not be sold.¹⁰⁷ Four other states, including Rhode Island, New Jersey, New Hampshire, and Pennsylvania, adopted similar gunpowder inspection laws in the late eighteenth and early nineteenth centuries.¹⁰⁸

The regulation of firearms and ammunition was singled out as the quintessential example of state police power by Chief Justice John Marshall in his 1827 discussion of laws regulating gun powder in *Brown v. Maryland*.¹⁰⁹ This was so even though gunpowder was essential to the operation of firearms at that time and gun powder regulations necessarily affected the ability of gun owners to use firearms for self-defense, even inside the home.

A slow process of judicializing this concept of police, transforming the Founding era's idea of a "police right" into a judicially enforceable concept of the "police power" occurred beginning

¹⁰⁶ John C. White, Digest of the Laws and Ordinances of the Parish of East Feliciana, Adopted by the Police Jury of the Parish Page 80 (1848); Ordinances and Joint Resolutions of the City of San Francisco; Together with a List of the Officers of the City and County, and Rules and Orders of the Common Council Page 220 (1854); Chas. Ben. Darwin, Ordinances of the City of Burlington, with Head Notes and an Analytic Index Page 149-150 (1856) ; Rhode Island: 1851 R.I. Pub. Laws 9, An Act In Amendment Of An Act Entitled An Act Relating To Theatrical Exhibitions And Places Of Amusement, §§ 1-2; Samuel Ames, The Revised Statutes of the State of Rhode Island and Providence Plantations: To Which are Prefixed, The Constitutions of the United States and of the State Page 204-205(1857); William H. Bridges, Digest of the Charters and Ordinances of the City of Memphis, Together with the Acts of the Legislature Relating to the City, with an Appendix Page 148-149 (1863); Henry Jefferson Leovy, The Laws and General Ordinances of the City of New Orleans, Together with the Acts of the Legislature, Decisions of the Supreme Court. And Constitutional Provisions Relating to the City Government. Revised and Digested, Pursuant to an Order of the Common Council. New Edition Page 257 (1870).

¹⁰⁷ 1808 Mass. Acts 444, ch. 52, An Act Providing for the Appointment of Inspectors, and Regulating the Manufactory of Gun-Powder.

¹⁰⁸ 1776 R.I. Pub. Laws 25 (Oct. Sess.); 1776-77 N.J. Laws 6-7, ch. 6; 1820 N.H. Laws 274, ch. 25; 1794 Pa. Laws 764, ch. 337.

¹⁰⁹ 25 U.S. (12 Wheat.) 419, 442-43 (1827) ("The power to direct the removal of gunpowder is a branch of the police power").

with the Marshall Court and continuing with the Taney Court.¹¹⁰ Nor was Chief Justice John Marshall unique in highlighting the centrality of this idea to American law.¹¹¹ The ubiquity of the police power framework for evaluating the constitutionality of legislation regarding firearms reflected the centrality of this approach to nearly every question of municipal legislation touching health or public safety in early America.¹¹² Massachusetts Judge Lemuel Shaw, one of the most celebrated state jurists of the pre-Civil War era elaborated this point in his influential 1851 opinion in *Commonwealth v. Alger*, a decision that became a foundational text for lawyers, judges, and legislators looking for guidance on the meaning and scope of the police power.

Shaw described the police power in the following manner:

[T]he power vested in the legislature by the constitution, to make, ordain and establish all manner of wholesome and reasonable laws, statutes and ordinances, either with penalties or without, not repugnant to the constitution, as they shall judge to be for the good and welfare of the commonwealth, and of the subjects of the same. It is much easier to perceive and realize the existence and sources of this power, than to mark its boundaries, or prescribe limits to its exercise. There are many cases in which such a power is exercised by all well-ordered governments, and where its fitness is so obvious, that all well regulated minds will regard it as reasonable. Such are the laws to prohibit the use of warehouses for the storage of gunpowder.¹¹³

In short, there was unanimous agreement among leading antebellum jurists, at both the

¹¹⁰ Eras of Supreme Court history are typically defined by the tenure of the Chief Justice. The Marshall Court Period covered the years 1801-1835. For a brief overview, see *The Marshall Court, 1801-1835*, SUPREME COURT HISTORICAL SOCIETY (last visited Oct. 5, 2022), <https://supremecourthistory.org/history-of-the-court-history-of-the-courts/history-of-the-court-history-of-the-courts-the-marshall-court-1801-1835/>. The Taney Court period covered the years 1836-1864. See *The Taney Court, 1836-1864*, SUPREME COURT HISTORICAL SOCIETY (last visited Oct. 5, 2022), <https://supremecourthistory.org/history-of-the-court-history-of-the-courts/history-of-the-courts-history-of-the-courts-the-taney-court-1836-1864/>.

¹¹¹ In the extensive notes he added as editor of the 12th edition of James Kent's classic *Commentaries on American Law*, Oliver Wendell Holmes, Jr., wrote that regulation of firearms was the *locus classicus* of the police power. See 2 JAMES KENT COMMENTARIES ON AMERICAN LAW (340) 464 n.2 (Oliver Wendell Holmes, Jr., ed. 12 ed. 1873).

¹¹² FREUND, *supra* note 95, at 2, n.2 (1904). WILLIAM J. NOVAK, *THE PEOPLE'S WELFARE: LAW AND REGULATION IN NINETEENTH-CENTURY AMERICA* (1996).

¹¹³ *Commonwealth v. Alger*, 61 Mass. (7 Cush.) 53 (1851). For another good discussion of how state jurisprudence treated the concept, see *Thorpe v. Rutland*, 27 Vt. 140, 149 (1855).

federal and state level, that the regulation of arms and gun powder was at the core of the police power enjoyed by legislatures. Indeed, the scope of government power to regulate, prohibit, and inspect gunpowder has been among the most far reaching of any exercise of the police power throughout American history.¹¹⁴ A Maine law enacted in 1821 authorized town officials to enter any building in town to search for gun powder:

Be it further enacted, That it shall, and may be lawful for any one or more of the selectmen of any town to enter any building, or other place, in such town, to search for gun powder, which they may have reason to suppose to be concealed or kept, contrary to the rules and regulations which shall be established in such town, according to the provisions of this Act, first having obtained a search warrant therefore according to law.¹¹⁵

No jurisdiction enumerated the full contours of the police power they possessed in a single text or in a single statute or ordinance. Rather, it was well understood that the exercise of this power would need to adapt to changing circumstances and new challenges as they emerged. This conception of law was familiar to most early American lawyers and judges who had been schooled in common law modes of thinking and analysis.¹¹⁶ Throughout the long sweep of Anglo-American legal history, government applications of the police power were marked by flexibility, allowing local communities to adapt to changing circumstances and craft appropriate legislation to deal with the shifting challenges they faced.¹¹⁷ This vision of the police power was articulated forcefully by the Supreme Court in the License Cases when Justice McClean wrote this about the scope of state police power:

¹¹⁴ CORNELL, *THE POLICE POWER*, *supra* note 31.

¹¹⁵ 1821 Me. Laws 98, An Act for the Prevention of Damage by Fire, and the Safe Keeping of Gun Powder, chap. 25, § 5.

¹¹⁶ KUNAL M. PARKER, *COMMON LAW HISTORY, AND DEMOCRACY IN AMERICA, 190-1900: LEGAL THOUGHT BEFORE MODERNISM* (2013).

¹¹⁷ William J. Novak, *A State of Legislatures*, 40 *POLITY* 340 (2008).

It is not susceptible of an exact limitation, but must be exercised under the changing exigencies of society. In the progress of population, of wealth, and of civilization, new and vicious indulgences spring up, which require restraints that can only be imposed by new legislative power. When this power shall be exerted, how far it shall be carried, and where it shall cease, must mainly depend upon the evil to be remedied.¹¹⁸

One of the most important early American gun-related cases discussed in *Heller*, *State v. Reid*, offers an excellent illustration of the way police power jurisprudence was used by antebellum judges to adjudicate claims about gun rights and the right of the people to regulate.¹¹⁹ The case is a classic example of antebellum police power jurisprudence. The Supreme Court of Alabama evaluated the statute by focusing on the scope of state police power authority over guns. “The terms in which this provision is phrased,” the court noted, “leave with the Legislature the authority to adopt such regulations of police, as may be dictated by the safety of the people and the advancement of public morals.”¹²⁰ In the court’s view, the regulation of arms was at the very core of state police power.¹²¹ The judicial determination was straightforward: was the challenged law a legitimate exercise of the police power or not?

Modern-day legislative efforts to ban large-capacity magazines, semi-automatic weapons, and machine guns fit squarely within the long Anglo-American tradition of limiting public access to weapons capable of provoking terror. During American’s first gun violence crisis in the Jacksonian era, states targeted pistols that were easily concealed, and in the New Deal era, states singled out gangster weapons such as the notorious Thompson sub-machine gun (or “Tommy Gun”), treating these weapons as sufficiently dangerous or unusual to warrant extensive regulation,

¹¹⁸ *License Cases* (*Thurlow v. Massachusetts*; *Fletcher v. Rhode Island*; *Peirce v. New Hampshire*), 5 How. (46 U.S.) 504, 592 (1847).

¹¹⁹ *See State v. Reid*, 1 Ala. 612, 612 (1840).

¹²⁰ *Id.* at 616.

¹²¹ Apart from rare outlier decisions, such as *Bliss v. Commonwealth*, 12 Ky. (2 Litt.) 90, 92 (1822) courts employed a police power framework to adjudicate claims about the scope of state power to regulate arms. For a useful discussion of *Bliss* in terms of the police power, *see* FREUND, *supra* note 95, at 91.

or prohibition. The same imperatives and constitutional logic guided both regulatory regimes.¹²²

F. Reconstruction And State Police Power To Regulate Firearms (1863-1877)

Founding-era constitutions treated the right of the people to regulate their internal police separately from the equally important right of the people to bear arms. These two rights were textually distinct in the Founding era but were mutually reinforcing in both theory and practice: both were exercised in a manner that furthered the goal of ordered liberty. Reconstruction-era constitutions adopted a new textual formulation of the connection between these two formerly distinct rights, fusing the two together as one single constitutional principle.¹²³ This change reflected two profound transformations in American politics and law between 1776 and 1868. First, the judicial concept of police power gradually usurped the older notion of a police right grounded in the idea of popular sovereignty.¹²⁴ As a result, state constitutions no longer included positive affirmations of a police right. Secondly, the constitutional “mischief to be remedied” had changed as well.¹²⁵ Constitution writers in the era of the American Revolution feared powerful standing armies and sought to entrench civilian control of the military.¹²⁶ By contrast, constitution writers in the era of the Fourteenth Amendment were no longer haunted by the specter of tyrannical

¹²² Spitzer, *supra* note 43.

¹²³ Saul Cornell, *The Right to Regulate Arms in the Era of the Fourteenth Amendment: The Emergence of Good Cause Permit Schemes in Post-Civil War America*, 55 U.C. DAVIS L. REV. 65 (2022).

¹²⁴ See Knapp *supra* note 11.

¹²⁵ The mischief rule was first advanced in *Heydon’s Case*, (1584) 76 Eng. Rep. 637 (KB) — the legal principle that the meaning of a legal text was shaped by an understanding of the state of the common law prior to its enactment and the mischief that the common law had failed to address and legislation had intended to remedy — continued to shape Anglo-American views of statutory construction, and legal interpretation more generally, well into the nineteenth century. For Blackstone’s articulation of the rule, see 1 BLACKSTONE, *supra* note 8, at *61. The relevance of common law modes of statutory construction to interpreting antebellum law, including the mischief rule, is clearly articulated in 1 ZEPHANIAH SWIFT, A DIGEST OF THE LAWS OF THE STATE OF CONNECTICUT 11 (New Haven, S. Converse 1822). For a modern scholarly discussion of the rule, see Samuel L. Bray, *The Mischief Rule*, 109 GEO. L.J. 967, 970 (2021).

¹²⁶ Noah. Shusterman, ARMED CITIZENS: THE ROAD FROM ANCIENT ROME TO THE SECOND AMENDMENT (2020).

Stuart Kings using their standing army to oppress American colonists. In place of these older fears, a new apprehension stalked Americans: the proliferation of especially dangerous weapons and the societal harms they caused.¹²⁷

The new language state constitutions employed to describe the right to bear arms enacted during Reconstruction responded to these changed circumstances by adopting a new formulation of the venerable right codified in 1776, linking the right to bear arms inextricably with the states' broad police power to regulate conduct to promote health and public safety.¹²⁸ For example, the 1868 Texas Constitution included new language that underscored the indissoluble connection that Anglo-American law had long recognized between the right to keep and bear arms and regulation of guns. "Every person shall have the right to keep and bear arms, in the lawful defence of himself or the government, under such regulations as the Legislature may prescribe."¹²⁹ Texas was not an outlier in this regard. Sixteen state constitutions adopted during this period employed similarly expansive language.¹³⁰ Americans living in the newly organized western states and newly reconstructed states of the former Confederacy adopted constitutional provisions that reflected this new formulation of the right to bear arms. Thus, millions of Americans were living under constitutional regimes that acknowledged that the individual states' police power authority over firearms was at its apogee when regulating guns.¹³¹

¹²⁷ On the change in state constitutional arms bearing provisions, *See McDonald*, 561 U.S. at 767–68. For an analysis of the different mischiefs shaping the structure of state arms bearing provisions in these two periods, see Cornell, *supra* note 123.

¹²⁸ Cornell, *supra* note 123.

¹²⁹ TEX. CONST. OF 1868, Art. I, § 13; for similarly expansive constitutional provision enacted after the Civil War, *see* IDAHO CONST. OF 1889, art. I, § 11 ("The people have the right to bear arms for their security and defense; but the legislature shall regulate the exercise of this right by law."); UTAH CONST. OF 1896, art. I, § 6 ("[T]he people have the right to bear arms for their security and defense, but the legislature may regulate the exercise of this right by law.").

¹³⁰ Cornell, *supra* note 123, at 75–76.

¹³¹ *Id.*

This expansion of regulation was entirely consistent with the Fourteenth Amendment's emphasis on the protection of rights and the need to regulate conduct that threatened the hard-won freedoms of recently free people of the South and their Republican allies. The goals of Reconstruction were therefore intimately tied to the passage and enforcement of racially neutral gun regulations.¹³²

Reconstruction ushered in profound changes in American law, but it did not fundamentally alter the antebellum legal view that a states' police powers were rooted in the people's right to make laws to protect the peace and promote public safety. Nor did Reconstruction challenge the notion that these powers were at their zenith when dealing with guns and gun powder. In fact, the Republicans who wrote the Fourteenth Amendment were among the most ardent champions of an expansive view of state police power. As heirs to the antebellum Whig vision of a well-regulated society, Reconstruction-era Republicans used government power aggressively to protect the rights of recently freed slaves and promote their vision of ordered liberty.¹³³

Indeed, the passage of the Fourteenth Amendment was premised on the notion that the individual states would not lose their police power authority to the federal government. The author of Section One of the Fourteenth Amendment, John Bingham, reassured voters that the states would continue to bear the primary responsibility for "local administration and personal security."¹³⁴ As long as state and local laws were racially neutral and favored no person over any

¹³² ERIC FONER, *THE SECOND FOUNDING: HOW THE CIVIL WAR AND RECONSTRUCTION REMADE THE CONSTITUTION* (2019); Brennan Gardner Rivas, *Enforcement of Public Carry Restrictions: Texas as a Case Study*, 55 U.C. DAVIS L. REV. 2603 (2022).

¹³³ Robert J. Kaczorowski, *Congress's Power to Enforce Fourteenth Amendment Rights: Lessons from Federal Remedies the Framers Enacted*, 42 HARV. J. ON LEGIS. 187 (2005); Christopher Tomlins, *To Improve the State and Condition of Man: The Power to Police and the History of American Governance* 53 BUFFALO L. REV. 1215 (2005/2006).

¹³⁴ John Bingham, *Speech*, CINCINNATI DAILY GAZETTE (Sept. 2, 1867), as quoted in Saul Cornell and Justin Florence, *The Right to Bear Arms in the Era of the Fourteenth Amendment: Gun Rights or Gun Regulation*, 50 SANTA CLARA L. REV. 1043, 1058 (2010).

other, the people themselves, acting through their representatives, were free to enact reasonable measures necessary to promote public safety and further the common good.¹³⁵

It would be difficult to understate the impact of this new paradigm for gun regulation on post-Civil War legislation. Across the nation legislatures took advantage of the new formulation of the right to bear arms included in state constitutions and enacted a staggering range of new laws to regulate arms. Indeed, the number of laws enacted skyrocketed, increasing by over four hundred percent from antebellum levels.¹³⁶ Not only did the number of laws increase, but the number of states and localities passing such laws also expanded.¹³⁷ The expansion of regulation did not represent a new constitutional principle, but it did embody a new application that represented an adaptation to changed circumstances of post-Civil War America.

Henry Campbell Black, the author of *Black's Law Dictionary*, described the police power as “inalienable” and echoed the view of a long line of jurists who noted that the scope of the power was not easily defined and the determination of its limits was best left to courts on a case-by-case basis.¹³⁸ Indeed, even the most ardent critics of the police power, such as conservative legal scholar Christopher G. Tiedeman, acknowledged that the “police power of the State extends to the protection of the lives, limbs, health, comfort and quiet of all persons, and the protection of all property within the State.”¹³⁹

In keeping with the larger goals of Reconstruction, Republicans sought to protect the rights of African Americans to bear arms but were equally insistent on enacting strong racially neutral

¹³⁵ For a discussion of how the courts wrestled with the meaning of the Amendment, see WILLIAM E. NELSON, *THE FOURTEENTH AMENDMENT: FROM POLITICAL PRINCIPLE TO JUDICIAL DOCTRINE* (1998).

¹³⁶ See Spitzer, *supra* note 43, at 59–61 tbl. 1.

¹³⁷ *Id.*

¹³⁸ HENRY CAMPBELL BLACK, *HANDBOOK OF CONSTITUTIONAL LAW*, 334–344 (2d ed., 1897).

¹³⁹ CHRISTOPHER G. TIEDEMAN, *A TREATISE ON THE LIMITATIONS OF THE POLICE POWER IN THE UNITED STATES* 4–5 (1886) (citing *Thorpe v. Rutland R.R.*, 27 Vt. 140, 149–50 (1854)).

regulations aimed at public safety. Violence directed against African Americans, particularly the campaign of terror orchestrated by white supremacist para-military groups prompted Republican dominated legislatures in the Reconstruction South to pass a range of racially neutral gun regulations.¹⁴⁰ The racially neutral gun laws enacted by Republicans were in part a reaction to the discriminatory black codes passed by neo-confederate legislatures earlier in Reconstruction. The Black Codes violated the Second Amendment, but the wave of firearms legislation passed by Republican controlled state legislatures in the South were consciously crafted to honor the Second Amendment and protect individuals from gun violence.¹⁴¹

The laws adopted to address these problems underscore the fact that robust regulation of firearms during Reconstruction was not a novel application of the police power, but an expansion and continuation of antebellum practices. Moreover, these efforts illustrated a point beyond dispute: the flexibility inherent in police power regulations of guns. American states had regulated arms since the dawn of the republic and Reconstruction simply renewed America's commitment to the idea of well-regulated liberty and the use of police power to promote public safety.

V. CONCLUSION: The Scope Of Permissible Regulation

The power to regulate and in some cases prohibit dangerous or unusual weapons has always been central to the police power authority of states and localities.¹⁴² Political scientist Robert Spitzer's overview of the history of firearms regulation underscores a basic point about American

¹⁴⁰ Mark Anthony Frassetto, *The Law and Politics of Firearms Regulation in Reconstruction Texas*, 4 TEX. A&M L. REV. 95, 113–17 (2016); Brennan G. Rivas, *An Unequal Right to Bear Arms: State Weapons Laws and White Supremacy in Texas, 1836-1900*, 121 SOUTHWESTERN QUARTERLY 284 (2020).

¹⁴¹ See Darrell A. H. Miller, *Peruta, The Home-Bound Second Amendment, and Fractal Originalism*, 127 HARV. L. REV. 238, 241 (2014); see also Robert J. Kaczorowski, *Congress's Power to Enforce Fourteenth Amendment Rights: Lessons from Federal Remedies the Framers Enacted*, 42 HARV. J. ON LEGIS. 187, 205 (2005) (discussing Republican use of federal power to further their aims, including to enforce the Fourteenth Amendment).

¹⁴² Spitzer, *supra* note 43.

law: “The lesson of gun regulation history here is that new technologies bred new laws when circumstances warranted.”¹⁴³ States and localities have regulated arms and ammunition since the earliest days of the American Republic. The statutes at issue in this case are analogous to a long-established tradition of firearms regulation in America, beginning in the colonial period and stretching across time to the present. This venerable tradition of using police power authority to craft specific laws to meet shifting challenges has continued to the present day.¹⁴⁴ The adaptability of state and local police power provided the flexibility governments needed to deal with the problems created by changes in firearms technology and gun culture. Weapons have been subject to regulation since before the Founding and this power has been at the core of state police power from time immemorial.¹⁴⁵

I declare that the foregoing is true and correct to the best of my knowledge.

Saul Cornell

Saul Cornell

June 2, 2023

Date

¹⁴³ *Id.*

¹⁴⁴ GERSTLE, *supra* note 13.

¹⁴⁵ Robert C. Post, *Between Governance and Management: The History and Theory of the Public Forum* 34 UCLA L. REV. 1713, 1769 (1986-1987).

Exhibit 1

Saul Cornell

Paul and Diane Guenther Chair in American History

Department of History

Fordham University

441 East Fordham Road * Bronx, NY 10458 * 203 826-6608 (c) * scornell1@fordham.edu

Education

1989	University of Pennsylvania	Ph.D.	Dissertation: "The Political Thought and Culture of the Anti-Federalists"
1985	University of Pennsylvania	MA	History
1982	Amherst College	BA	History - Magna Cum Laude
1980-81	University of Sussex, Brighton, England		

Teaching Experience

2009-2020	Guenther Chair in American History	Fordham University
2011-2022	Adjunct Professor of Law	Fordham Law School
2005-2008	Professor of History	The Ohio State University
1997-2005	Associate Professor, History	The Ohio State University
1995	Thomas Jefferson Chair	University of Leiden, The Netherlands
1991-1997	Assistant Professor, History	The Ohio State University
1989-1991	Assistant Professor, History	College of William and Mary

Fellowships and Grants

- 2019-2020 The Gilder Lehrman Center for the Study of Slavery, Resistance, and Abolition, Yale University
- 2018-2019 Senior Research Scholar in Residence, Floersheimer Center for Constitutional Democracy, Cardozo Law School
- 2014 Senior Research Scholar in Residence, University of Connecticut Law School
- 2011 Senior Research Scholar in Residence, Yale Law School
- 2003-2008 Joyce Foundation, Second Amendment Center Grant, \$575,000
- 2003-2004 NEH Fellowship
- 2002-2005 Department of Education, Teaching American History Grant, Historyworks, \$2,000,000
- 2002 Gilder-Lehrman Fellowship
- 2001-2002 Joyce Foundation Planning Grant, \$40,000
- 2001 American Council of Learned Societies (ACLS)
- 1999-2000 Betha Grant, Batelle Memorial Endowment, Ohio Teaching Institute, \$100,000
- 1998 Thomas Jefferson Memorial Foundation, Research Fellowship
- 1995 Thomas Jefferson Chair in American Studies, Fulbright Lecturing Award
- 1994 Ohio State University Seed Grant
- 1993 Ohio State University Special Research Assignment
- 1992 Ohio State University Grant-In-Aid
- 1989-1991 NEH Post-Doctoral Fellow, Institute of Early American History and Culture

Prizes and Awards

- 2006 Langum Prize in Legal History 2006
- 2006 History News Network, Book of the Month
- 2006 History News Network, Top Young Historian
- 2001 Society of the Cincinnati, History Book Prize, a Triennial Award for the Best Book on the American Revolutionary Era
- 2000 Choice Outstanding Academic Book

Book Publications

The Partisan Republic: Democracy, Exclusion, and the Fall of the Founders Constitution
New Histories of American Law, series eds., Michael Grossberg and Christopher Tomlins (Cambridge University Press, 2019) [With Gerald Leonard]

The Second Amendment On Trial: Critical Essays on District of Columbia v. Heller
(University of Massachusetts Press, 2013) [with Nathan Kozuskanich]

Visions of America: A History of the United States [co-authored with Jennifer Keene and Ed O'Donnell]
(First edition, 2009),(second edition 2013) (third edition, 2016)

"A Well Regulated Militia": The Founding Fathers and the Origins of Gun Control (Oxford University Press, 2006) (paperback edition 2008)

Whose Right to Bear Arms Did the Second Amendment Protect? (Bedford/St. Martins Press, 2000)
(Paperback 2000)

The Other Founders: Anti-Federalism and the Dissenting Tradition in America, 1788-1828 (Institute of Early American History and Culture, University of North Carolina Press, 1999) (paperback edition 2001)

Editor, Retrieving the American Past: Documents and Essays on American History, (Pearson, 1994-2008)

Scholarly Articles, Book Chapters, and Essays:

"History and Tradition or Fantasy and Fiction: Which Version of the Past Will the Supreme Court Choose in *NYSRPA v. Bruen?*," 49 *Hastings Constitutional Law Quarterly* (2022): 145-177.

"The Long Arc of Arms Regulation in Public: From Surety to Permitting, 1328–1928," 55 University of California, Davis Law Review (2022): 2545-2602

"'Infants' and Arms Bearing in the Era of the Second Amendment: Making Sense of the Historical Record," 40 Yale Law & Policy Review Inter Alia 1 (2021)

"The Right to Regulate Arms in the Era of the Fourteenth Amendment: The Emergence of Good Cause Permit Schemes in Post-Civil War America" 55 University of California, Davis Law Review Online (2021): 65-90.

- “President Madison's Living Constitution: Fixation, Liquidation, and Constitutional Politics in the Jeffersonian Era”, 89 Fordham Law Review (2021): 1761-1781.
- “History, Text, Tradition, and the Future of Second Amendment Jurisprudence: Limits on Armed Travel Under Anglo-American Law, 1688–1868,” 83 Law and Contemporary Problems (2020): 73-95
- “Reading the Constitution, 1787–91: History, Originalism, and Constitutional Meaning.” Law and History Review 37 (2019): 821–45
- “Constitutional Mythology and the Future of Second Amendment Jurisprudence after *Heller*,” in Firearms and Freedom: The Second Amendment in the Twenty-First Century Controversies in American Constitutional Law Series (Routledge, 2017): 8-24
- “The Right to Keep and Carry Arms in Anglo-American Law, Preserving Liberty and Keeping the Peace,” 80 Law and Contemporary Problems (2017): 11-54
- “Half Cocked’: The Persistence of Anachronism and Presentism in the Academic Debate over the Second Amendment,” 107 Northwestern Journal of Criminal Law 107 (2017): 203-218
- “The 1790 Naturalization Act and the Original Meaning of the Natural Born Citizen Clause: A Short Primer on Historical Method and the Limits of Originalism,” Wisconsin Law Review Forward 92 (2016)
- “Constitutional Meaning and Semantic Instability: Federalists and Anti-Federalists on the Nature of Constitutional Language,” in special issue on “The Future of Legal History,” American Journal of Legal History 56 (2016): 21-29
- “Firearm Regionalism and Public Carry: Placing Southern Antebellum Case Law in Context,” Yale Law Journal Forum 125(2015-16):121-135 [with Eric Ruben]
- “Originalism As Thin Description: An Interdisciplinary Critique” Fordham Law Review Res Gestae 84 (2015): 1-10
- “The Right to Bear Arms,” The Oxford Handbook of the US Constitution, eds., Mark Tushnet, Sanford Levinson, and Mark Graber (2015): 739-759
- “Conflict, Consensus & Constitutional Meaning: The Enduring Legacy of Charles Beard” Constitutional Commentary 29(2014): 383-409
- “Meaning and Understanding in the History of Constitutional Ideas: the Intellectual History Alternative to Originalism” Fordham Law Review 82 (2013): 721-755
- “The Right to Carry Firearms Outside of the Home: Separating Historical Myths from Historical Realities” Fordham Urban Law Journal 39 (2012): 1695-1726
- “Evidence, Explanation, and the Ghost of Charles Beard” William & Mary Quarterly 69 (2012): 393-4
- “Idiocy, Illiteracy, and the Forgotten Voices of Popular Constitutionalism: Ratification and the Ideology of Originalism” William & Mary Quarterly 69 (2012): 365-368
- “The People’s Constitution v. The Lawyer’s Constitution: Popular Constitutionalism and the Original Debate Over Originalism,” Yale Journal of Law and the Humanities 23 (2011): 295-337
- “St. George Tucker's Lecture Notes, The Second Amendment, and Originalist Methodology: A Critical Comment,” Northwestern University Law Review 103 (2009): 406-416

- “Heller, New Originalism, and Law Office History: ‘Meet the New Boss, Same as the Old Boss’” UCLA Law Journal 56 (2009): 1095 -1125
- “Originalism on Trial: The Use and Abuse of History in *District of Columbia v. Heller*” Ohio-State Law Journal 69 (2008): 625-640
- “Consolidation of the Early Federal System,” Chapter 10 of the Cambridge History of American Law (Cambridge University Press, 2008) [With Gerry Leonard]
- “The Ironic Second Amendment” Albany Government Law Review 2 (2008): 292-311.
- “The Original Meaning of Original Understanding: A Neo-Blackstonian Critique,” Maryland Law Review (2008): 101-115
- “Mobs, Militias, and Magistrates: Popular Constitutionalism During the Whiskey Rebellion,” Chicago-Kent Law Review (2007): 883-903
- “The Second Amendment and Early American Gun Regulation: a Closer Look at the Evidence,” Law and History Review (2007): 197-204
- “St. George Tucker and the Second Amendment: Original Understandings and Modern Misunderstandings,” William and Mary Law Review 47 (2006): 1123-55
- “The Early American Origins of the Modern Gun Control Debate: The Right to Bear Arms, Firearms Regulation, the Lessons of History,” Stanford Law and Policy Review (2006): 571-596
- “Well Regulated: The Early American Origins of Gun Control,” Fordham Law Review 73 (2004): 487-528 [With Nathan DeDino]
- “Beyond the Myth of Consensus: The Struggle to Define the Right to Bear Arms in the Early Republic,” in Beyond the Founders: New Essays on the Political History of the Early Republic (UNC Press, 2005)
- “A New Paradigm for the Second Amendment,” Law and History Review 22 (2004): 161-7
- “Gun Laws and Policies: A Dialogue,” Focus on Law Studies: Teaching about Law in the Liberal Arts (American Bar Association, 2003)
- “The Militia Movement,” Oxford Companion to American Law (Oxford University Press, 2002)
- “Don’t Know Much About History: The Current Crisis in Second Amendment Scholarship,” Northern Kentucky Law Review (2003)
- “A Right to Bear Quills or Kill Bears? A Critical Commentary on the Linkage between the 1st and 2nd Amendment in Recent Constitutional Theory,” in The Limits of Freedom in A Democratic Society (Kent State University Press, 2001)
- “The Irony of Progressive Historiography: The Revival of Anti-Federalism in Contemporary Constitutional History,” in American Law Ways and Folkways (Odense University Press, Denmark 2001)
- “Commonplace or Anachronism: The Standard Model, The Second Amendment, and the Problem of History in Contemporary Constitutional Theory,” Constitutional Commentary (1999): 221-246
- “Mere Parchment Barriers? Anti-Federalists, the Bill of Rights, and the Question of Rights Consciousness,” in Government Proscribed: The Bill of Rights (University of Virginia Press, 1998): 175-208

- “Moving Beyond the Great Story: Post-Modern Prospects, Post-Modern Problems, A Forum on Robert Berkhofer, Jr. Beyond the Great Story” American Quarterly (1998): 349-357
- “The Anti-Federalists,” in The Blackwell Companion to American Thought, eds., James Kloppenberg (London, 1995)
- “The Bill of Rights,” in The Blackwell Companion to American Thought, eds., James Kloppenberg (London, 1995)
- “Splitting the Difference: Textualism, Contextualism, and Post-Modern History,” American Studies (1995): 57-80
- “Canon Wars II: The Return of the Founders,” Reviews in American History 22 (1994): 413-417
- “Moving Beyond the Canon of Traditional Constitutional History: Anti-Federalists, the Bill of Rights and the Promise of Post-Modern Historiography,” Law and History Review (1994): 1-28
- “Early American History in a Post-Modern Age,” William and Mary Quarterly 50 (1993): 329-341
- “Liberal Republicans, Republican Liberals?: The Political Thought of the Founders Reconsidered,” Reviews in American History 21 (1993): 26-30
- “Politics of the Middling Sort: The Bourgeois Radicalism of Abraham Yates, Melancton Smith, and the New York Anti-Federalists,” in New York in the Age of the Constitution (New York Historical Society, 1992): 151-175
- “Aristocracy Assailed: Back-Country Opposition to the Constitution and the Problem of Anti-Federalist Ideology,” Journal of American History (1990): 1148-1172
- “The Changing Historical Fortunes of the Anti-Federalists,” Northwestern University Law Review (1989): 39-73
- “Reflections on the ‘Late Remarkable Revolution in Government,’ Aedanus Burke and Samuel Bryan’s Unpublished History of the Ratification of the Federal Constitution,” The Pennsylvania Magazine of History and Biography (1988): 103-130

Book Reviews:

- Journal of American History
- William and Mary Quarterly
- American Studies Journal of the Early Republic
- Pennsylvania Magazine of History and Biography
- American Quarterly
- American Journal of Legal History
- Law and History Review

Journal Manuscript Referee:

- Journal of American History
- William and Mary Quarterly
- Diplomatic History
- Pennsylvania Magazine of History and Biography
- Law and History Review
- Harvard Law Review

- Stanford Law Review
- Yale Law Journal

Book Manuscript Reviewer:

- University Press of Virginia
- University of North Carolina Press
- Stanford University Press
- University of Massachusetts Press
- Oxford University Press
- Cambridge University Press
- University of Michigan Press
- Harvard University Press

Invited Lectures:

“Race, Regulation, and Guns: The Battleground in the Debate Over the Second Amendment,”
Haber/Edelman Lecture: University of Vermont, Fall 2021

“Second Amendment Myths and Realities,” University of Tampa, Honors College Symposium,
November 30, 2018.

“The Common Law and Gun Regulation: Neglected Aspects of the Second Amendment Debate,” Guns
in Law, Amherst College, Law Justice and Society (2016)

“The New Movement to End Gun Violence.” UCLA Hammer Museum (2016)

“No Person May Go Armed”: A Forgotten Chapter in the History of Gun Regulation” The Elizabeth
Battelle Clark Legal History Series, Boston University College of Law, 2016

Legacy Speaker Series: “Guns in the United States,” University of Connecticut (2016) “How does the
Second Amendment Apply to Today?”

American Constitution Society/ Federalist Society Debate, Tulane Law School, New Orleans (2016)

“The Second Amendment and The Future of Gun Regulation: Forgotten Lessons From U.S. History,”
Constitution Day Lecture, Goucher College, (2015)

Keynote Lecture: “The Second Amendment and American Cultural Anxieties: From Standing Armies to
the Zombie Apocalypse” Firearms and Freedom: The Relevance of the Second Amendment in the
Twenty First Century, Eccles Center, British Library (Spring 2015)

“Narratives of Fear and Narratives of Freedom: A Short Cultural History of the Second Amendment,”
Comparing Civil Gun Cultures: Do Emotions Make a Difference? Max Plank Institute, Berlin (2014)

“History and Mythology in the Second Amendment Debate,” Kollman Memorial Lecture, Cornell
College, Iowa (Spring, 2013)

“Will the Real Founding Fathers Please Stand Up or Why are so few Historians Originalists”
Constitution Day Lecture, Lehman College, Fall 2011

“Lawyers, Guns, and Historians: The Second Amendment Goes to Court,” SHEAR/HSP Public Lecture,
Philadelphia, July, 2008

The Robert H. and Alma J. Wade Endowment Lecture, Kentucky Wesleyan University, “The Early American Origins of Gun Control” (2006)

“Jefferson, Mason, and Beccaria: Three Visions of the Right to Bear Arms in the Founding Era,” Bill of Rights Lecture, Gunston Hall Plantation, Fairfax, VA (2003)

“A New Paradigm for the Second Amendment,” Finlay Memorial Lecture, George Mason University, (2001)

“Academic Gunsmoke: The Use and Abuse of History in the Second Amendment Debate,” Cadenhead Memorial Lecture, University of Tulsa, (2000)

“Why the Losers Won: The Rediscovery of Anti-Federalism in the Reagan Years,” Thomas Jefferson Inaugural Lecture, University of Leiden, Netherlands, (1995)

Presentations:

“From Ideology to Empiricism: Second Amendment Scholarship After Heller, “Hastings Constitutional Law Quarterly Symposium, Heller at Ten, January 18, 2019

“Firearms and the Common Law Tradition,” Aspen Institute, Washington, DC (2016)

“The Original Debate over Original Meaning Revisited,” British Group in Early American History, Annual Meeting, Cambridge, England (2016)

“Second Amendment Historicism and Philosophy” The Second Generation of Second Amendment Scholarship” Brennan Center, NYU 2016

“The Reception of the Statute of Northampton in Early America: Regionalism and the Evolution of Common Law Constitutionalism” OIEAHC and the USC/Huntington Library Early Modern Studies Institute May 29–30, 2015

“The Right to Travel Armed in Early America: From English Restrictions to Southern Rights,” British Group in Early American History, Annual Conference Edinburgh, Scotland (2014)

“Progressives, Originalists, and Pragmatists: The New Constitutional Historicism and the Enduring Legacy of Charles Beard,” Charles Beard, Economic Interpretation and History, Rothmere Center, Oxford University (2012)

CUNY Early American Seminar, “The People’s Constitution v. the Lawyer’s Constitution,” 2011

Roundtable : “The Work of J.R. Pole,” SHEAR , Philadelphia, Pennsylvania 2011)

“The Right to Bear Arms in the Era of the Fourteenth Amendment: Gun Rights or Gun Regulation?” Bearing Arms, Policy, Policing, and Incorporation After Heller, Santa Clara Law School (2010)

“Re-envisioning Early American History,” American Historical Association Annual Meeting, San Diego (2010)

“The Ironic Second Amendment” Firearms, the Militia, and Safe Cities: Merging History, Constitutional Law and Public Policy, Albany Law School (2007)

“*District of Columbia v. Heller* and the Problem of Originalism,” University of Pennsylvania Constitutional Law Workshop, Philadelphia (2007)

- “Progressives and the Gun Control Debate,” American Constitution Society, Harvard Law School, (2006)
- “The Problem of Popular Constitutionalism in Early American Constitutional Theory,” American Association of Law Schools, Annual Conference (2006)
- “Popular Constitutionalism and the Whiskey Rebellion,” Symposium on Larry Kramer’s The People Themselves, Chicago-Kent Law School (2005)
- Roundtable Discussion on the Second Amendment and Gun Regulation, NRA/ GMU Student’s For the Second Amendment Symposium (2005)
- “The Early American Origins of the Modern Gun Control Debate: The Right to Bear Arms, Firearms Regulation, and the Lessons of History,” Gun Control: Old Problems, New Problems, Joint Conference Sponsored by the John Glenn Institute and Stanford Law School (2005)
- “Original Rules for Originalists?” University of Minnesota Law School (2005)
- “The Fourteenth Amendment and the Origins of the Modern Gun Debate,” UCLA, Legal History Workshop (2004)
- “Beyond Consensus, Beyond Embarrassment: The Use and Abuse of History in the Second Amendment Debate,” American Society of Legal History, Austin, TX (2004)
- “Armed in the Holy Cause of Liberty: Guns and the American Constitution,” NYU Legal History Colloquium (2004)
- “Digital Searches and Early American History,” SHEAR Brown University (2004)
- “Well Regulated: The Early American Origins of Gun Control,” The Second Amendment and the Future of Gun Regulation,” Joint Conference Sponsored by the John Glenn Institute and Fordham Law School, New York (2004)
- “Minuteman, Mobs, and Murder: Forgotten Contexts of the Second Amendment,” Department of History, University of California Berkeley (2003)
- “History vs. Originalism in the Second Amendment Debate,” Federalist Society/ American Constitution Society, George Washington University Law School, Washington D.C. (2003)
- “Self-defense, Public Defense, and the Politics of Honor in the Early Republic,” Lake Champlain Early American Seminar, Montreal (2003)
- “The Ironic Second Amendment” “Gun Control: Controversy, Social Values, and Policy,” University of Delaware Legal Studies Conference, Newark, Delaware (2003)
- “Individuals, Militias, and the Right to Bear Arms: The Antebellum Debate Over Guns,” Institute for Legal Studies, University of Wisconsin School of Law (2004)
- “Guns in the British Atlantic World: New Research, New Directions” Society for the Historians of the Early American Republic, Ohio State University (2003)
- “Neither Individual nor Collective: A New Paradigm for the Second Amendment,” American Bar Foundation, Chicago (2003)
- “The Changing Meaning of the Armed Citizen in American History,” “Americanism Conference,” Georgetown University (2003)

- “A New Paradigm for the Second Amendment?” Supreme Court Historical Society, Washington, D.C. (2002)
- “Constitutional History as Cultural History: The Case of the Second Amendment” European American Studies Association, Bordeaux, France (2002)
- “Don’t Know Much About History: The Current Crises in Second Amendment Scholarship,” Salmon P. Chase College of Law, Symposium, “The Second Amendment Today,” (2002)
- “History, Public Policy, and the Cyber-Age: Gun Control Policy after the Emerson Decision,” Sanford Institute of Public Policy, Duke University (2002)
- “Constitutional History After the New Cultural History: The Curious Case of the Second Amendment,” Society of the Historians of the Early American Republic, Baltimore (2001)
- Roundtable Discussion, “The State of Second Amendment Scholarship,” American Historical Association (2001)
- “Armed in the Holy Cause of Liberty: Critical Reflections on the Second Amendment Debate,” Vanderbilt University Law School (2001)
- “Neither Individual nor Collective: A New Paradigm for the Second Amendment,” Boston University Law School, (2000)
- “The Current State of Second Amendment Scholarship,” National Press Club Washington, D.C. American Bar Association, (2000)
- “Taking the Hype out of Hyper-Text, Or What Should Textbook Companies Be Doing for us on the Web,” OAH St. Louis, Missouri (1999)
- “The Ironies of Progressive Historiography: The Revival of Anti-Federalism in Contemporary Constitutional Theory,” European American Studies Association, Lisbon, Portugal (1998)
- “Deconstructing the Canon of American Constitutional History” American Society of Legal History, Seattle, Washington (1998)
- “Beyond Meta-narrative: The Promise of Hypertext,” American Studies Association, Seattle, Washington (1998)
- “Text, Context, Hypertext,” American Historical Association, Washington D.C. (1998)
- “Jefferson and Enlightenment,” International Center for Jefferson Studies, Charlottesville, VA, (1998)
- “Copley’s Watson and the Shark: Interpreting Visual Texts with Multi-media Technology,” American Studies Association, Washington, D.C. (1997)
- “Multi-Media and Post-Modernism,” H-Net Conference, Technology and the Future of History, East Lansing, Michigan (1997)
- Comment on Jack Rakove’s Original Meanings, Society of the Historians of the Early Republic, State College, PA (1997)
- “Teaching with Multi-Media Technology,” Indiana University, spring 1997 “Constitutional History from the Bottom Up: The Second Amendment as a Test Case,” McGill University, Montreal, Canada (1996)

- “Just Because You Are Paranoid, Does Not Mean the Federalists Are Not Out to Get You: Freedom of the Press in Pennsylvania,” University of Pennsylvania (1995)
- “Multi-Media and Post-Modernism: The Future of American Studies?” Lecture, Erasmus University, Rotterdam, Netherlands (1995)
- “Post-Modern American History? Ratification as a Test Case,” St. Cross College, Oxford University, Oxford, England (1994)
- “The Other Founders,” NYU Legal History Seminar,” NYU Law School (1994)
- “Reading the Rhetoric of Ratification,” paper presented at “Possible Pasts: Critical Encounters in Early America,” Philadelphia Center for Early American Studies, Philadelphia, PA (1994)
- “American Historiography and Post-Modernism,” Organization of American Historians, Atlanta, GA (1994)
- “The Anti-Federalist Origins of Jeffersonianism,” Columbia Seminar on Early American History (1994)
- “American History in a Post-Modern Age?” American Historical Association, San Francisco, CA (1994)
- “Post-Modern Constitutional History?” Indiana University School of Law, Bloomington, IN (1993)
- Participant, Institute of Early American History and Culture, planning conference, “New Approaches to Early American History,” Williamsburg, VA (1992)
- “Mere Parchment Barriers? Federalists, Anti-Federalists and the Problem of Rights Consciousness,” American Studies Association, Baltimore, MD (1991)
- “James Madison and the Bill of Rights: a comment on papers by Jack Rakove, Ralph Ketcham and Max Mintz,” Organization of American Historians and Center for the Study of the Presidency Conference, “America's Bill of Rights at 200 Years,” Richmond, VA, (1991)
- Symposium participant, “Algernon Sidney and John Locke: Brothers in Liberty?” Liberty Fund Conference, Houston, TX (1991)
- “Mere Parchment Barriers? Antifederalists, the Bill of Rights and the Question of Rights Consciousness,” Capitol Historical Society, Washington, D.C. (1991)
- “Anti-Federalism and the American Political Tradition,” Institute of Early American History and Culture Symposium, Williamsburg, VA (1989)

Interviews, Editorials, Essays, Podcasts:

- “Clarence Thomas’ Latest Guns Decision Is Ahistorical and Anti-Originalist”
SLATE June 24, 2022

- Cherry-picked history and ideology-driven outcomes: Bruen’s originalist distortions,” SCOTUSblog (Jun. 27, 2022, 5:05 PM),
- “The Right Found a New Way to Not Talk About a School Shooting,” SLATE May 25, 2022
- “The Horror in New York Shows the Madness of the Supreme Court’s Looming Gun Decision,” *Slate* May 19, 2022
- “Guns, Guns Everywhere: Last week’s subway Shooting was Horrifying. If the Supreme Court Creates a National Right to Carry, the Future will be Worse,” *New York Daily News* Apr 17, 2022
- “The Supreme Court’s Latest Gun Case Made a Mockery of Originalism” *Slate* November 10, 2021
- “‘Originalism’ Only Gives the Conservative Justices One Option On a Key Gun Case,” *Washington Post*, November 3, 2021
- “Neither British Nor Early American History Support the Nearly Unfettered Right to Carry Arms,” *Slate* November 02, 2021
- “Will the Supreme Court Create Universal Concealed Carry Based on Fantasy Originalism?” *Slate* November 1, 2021
- “Biden was Wrong About Cannons, but Right About the Second Amendment,” *Slate* June 29, 2021
- “Barrett and Gorsuch Have to Choose Between Originalism and Expanding Gun Rights,” *Slate* April 29, 2021 *Slate*
- “What Today’s Second Amendment Gun Activists Forget: The Right Not to Bear Arms,” *Washington Post*, January 18, 2021
- “Could America’s Founders Have Imagined This?” *The New Republic*, December 20, 2019
- “Don’t Embrace Originalism to Defend Trump’s Impeachment” *The New Republic*, December 5, 2019
- “The Second-Amendment Case for Gun Control” *The New Republic*, August 4, 2019
- “The Lessons of a School Shooting—in 1853” *Politico*, March 24, 2018.
- “Originalism and the Second Amendment in *District of Columbia v. Heller*,” *University of Chicago Law Review*, Podcast, Briefly 1.9, Wed, 04/11/2018
- “Sandy Hook and the Original Meaning of the Second Amendment,” *Time* December, 2017
- “The State of the Second Amendment,” National Constitution Center, Podcast October, 2017
- “Gun Anarchy and the Unfree State: The Real History of the Second Amendment,” *The Baffler On-line* October 2017
- “Five Types of Gun Laws the Founding Fathers Loved” *Salon* October 22, 2017
- “Half Cocked,” *Book Forum* April 2016
- “Let’s Make an Honest Man of Ted Cruz. Here’s how we Resolve his “Birther” Dilemma with Integrity” *Salon* January 23, 2016
- “Guns Have Always Been Regulated,” *The Atlantic Online* December 17, 2015
- “The Slave-State Origins of Modern Gun Rights” *The Atlantic Online* 30, 2015 [with Eric Ruben]
- PBS, “Need to Know: ‘Debating the Second Amendment: Roundtable’” April 26, 2013
- “All Guns are not Created Equal” Jan 28, 2013 *Chronicle of Higher Education* [with Kevin Sweeney]

- “What the ‘Right to Bear Arms’ Really Means” *Salon* January 15, 2011 “Elena Kagan and the Case for an Elitist Supreme Court,” *Christian Science Monitor* May 20, 2010
- “Gun Points,” *Slate*, March 8, 2010 (With Justin Florence, and Matt Shors)
- “What’s Happening to Gun Control,” *To the Point*, NPR. March 11, 2010
- “Getting History Right,” *National Law Journal*, March 1, 2010
- “History and the Second Amendment,” *The Kojo Nnamdi Show*, WAMU (NPR) March 17, 2008
- “The Court and the Second Amendment,” *On Point* with Tom Ashbrook, WBUR (NPR) March 17, 2008
- “Aim for Sensible Improvements to Gun Regulations,” *Detroit Free Press*, April 29, 2007
- “A Well Regulated Militia,” *The Diane Rehm Show*, WAMU (NPR) Broadcast on Book TV (2006)
- “Taking a Bite out of the Second Amendment,” *History News Network*, January 30, 2005
- “Gun Control,” *Odyssey*, Chicago NPR September 8, 2004
- “Loaded Questions,” *Washington Post Book World* February 2, 2003
- “The Right to Bear Arms,” Interview *The Newshour*, PBS May 8, 2002
- “Real and Imagined,” *New York Times*, June 24, 1999

Other Professional Activities

- Editorial Board, Constitutional Study, University of Wisconsin Press (2014-present)
- Advisory Council, Society of Historians of the Early American Republic (SHEAR) (2007-2009)
- Program Committee, Annual Conference, Society of the Historians of the Early American Republic, Philadelphia, PA 2008
- Editorial Board, American Quarterly (2004-2007)
- Director, Second Amendment Research Center, John Glenn Institute for Public Service and Public Policy, 2002- 2007
- Fellow, Center for Law, Policy, and Social Science, Moritz College of Law, Ohio State University 2001- 2004
- Local Arrangements Committee, Annual Conference, Society of the Historians of the Early American Republic, Columbus, OH 2003
- Project Gutenberg Prize Committee, American Historical Association, 2004, 2002
- Program Committee, Annual Conference, Society of the Historians of the Early Republic, 2001
- Co-Founder Ohio Early American Studies Seminar
- NEH Fellowship Evaluator, New Media Projects, Television Projects
- Multi-media Consultant and Evaluator, National Endowment for the Humanities, Special, Projects, Division of Public Programs, Grants Review Committee (1999)

Court Citations, Amicus Briefs and Expert Witness Reports

US Supreme Court:

N.Y. State Rifle & Pistol Ass’n v. Bruen, 597 U.S. ___, 50 2022 U.S. Lexis 3055 (2022)

N.Y. State Rifle & Pistol Ass’n v. Bruen, 597 U.S. ___, 26, 28, 45, 47 2022 U.S. Lexis 3055 (2022) (Breyer, J. dissenting)

McDonald v. City of Chicago, Ill., 561 U.S. 742, 900, 901 n.44 (2010) (Stevens, J., dissenting).

McDonald v. City of Chicago, Ill., 561 U.S. 742, 914, 933 (2010) (Breyer, J., dissenting).

D.C. v. Heller, 554 U.S. 570, 666 n.32, 671, 685 (2008) (Stevens, J., dissenting).

Federal Courts:

Jones v. Bonta, United States Court of Appeals, Ninth Circuit. May 11, 2022 --- F.4th ---- 2022 WL 1485187.

Duncan v. Bonta, United States Court of Appeals, Ninth Circuit. November 30, 2021 19 F.4th 1087 2021

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Binderup v. Attorney Gen. United States of Am., 836 F.3d 336, 370–71, 371 n.17, 372 n.19 (3d Cir. 2016) (Hardiman, J., concurring).

Binderup v. Attorney Gen. United States of Am., 836 F.3d 336, 389 n.85, 405 n.187 (3d Cir. 2016) (Fuentes, J., concurring).

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Peruta v. Cty. of San Diego, 742 F.3d 1144, 1185, 1188 (9th Cir. 2014) (Thomas, J., dissenting).

Nat'l Rifle Ass'n, Inc. v. Bureau of Alcohol, Tobacco, Firearms, & Explosives, 714 F.3d 334, 342 n.19, 343 n.23 (5th Cir. 2013) (Jones, J., dissenting).

Kachalsky v. Cty. of Westchester, 701 F.3d 81, 95 & n.21 (2d Cir. 2012).

Moore v. Madigan, 702 F.3d 933, 935 (7th Cir. 2012).

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State v. Christen, 2021 WI 39, 958 N.W.2d 746

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Amicus Brief *KOX V. STATE OF GEORGIA, SUPREME COURT STATE OF GEORGIA* Case No. S23A0167 [Second Amendment and Campus Carry]

Amicus Brief, *NYSRPA v. Bruen*, No. 20-843 (U.S. Supreme Court, 2021) [2nd Amendment]

Amicus Brief, *Young v. State of Hawaii* N O . 12-17808 (9th Cir. 2020) [2nd Amendment]

Amicus Brief, *Gould v. Morgan*, No. 17-2202 (1st Cir. 2018) [2nd Amendment]

Amicus Brief, *Flanagan vs. Becerra*, Central District of California Case (2018) [2nd Amendment]

Amicus Brief, *Gill v. Whitford* (US Supreme Court, 2017) [Partisan Gerrymandering]

Amicus Brief, *Woollard v Gallagher*, (4th Cir. 2013) [Second Amendment]

Amicus Brief *Heller v. District of Columbia* [Heller II] (US Court of Appeals for D.C.) (2010) [2nd Amendment]
Amicus Brief, *McDonald v. City of Chicago* (US Supreme Court, 2010) [14th Amendment]
Amicus Brief, *District of Columbia v. Heller* (US Supreme Court 2008) [2nd Amendment]
Amicus Brief, *Silvera v. Lockyer*, case on appeal (9th Circuit 2003) [2nd Amendment]
Amicus Brief, *Emerson v. U.S.* case on appeal (5th Circuit 1999) [2nd Amendment]
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Chambers, et al., v. City of Boulder, 2018 CV 30581 (Colo. D. Ct. City of Boulder, filed June 14, 2018).
Zeleny v. Newsom, 14-cv-02850 (N.D. Cal.).
Miller, et al v. Smith, et al., 2018 cv 3085 (C.D. Ill.).
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“Gun Control: Old Problems, New Paradigms” 17 *Stan. L. & Pol’y Rev.* 671 (2006).
“A Symposium on Firearms, the Militia and Safe Cities: Merging History, Constitutional Law and Public Policy,” 1 *Alb. Gov’t L. Rev.* 292 (2008).
”The 2nd Amendment at the Supreme Court: “700 Years of History” and the Modern Effects of Guns in Public,” 55 *U.C. Davis L. Rev.* 2545 (2022).

New Originalism:

“The New Originalism” 82 *Fordham L. Rev.* 721 (2013).
“Historians and the New Originalism: Contextualism, Historicism, and Constitutional Meaning” 84 *Fordham L. Rev.* 915 (2015).

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY**

ASSOCIATION OF NEW JERSEY RIFLE & PISTOL CLUBS, INC., et al., Plaintiffs, v. PLATKIN, et al., Defendants.	Civil Action No. 3:18-cv-10507
CHEESEMAN, et al., Plaintiffs, v. PLATKIN, et al., Defendants.	Civil Action No. 1:22-cv-4360
ELLMAN, et al., Plaintiffs, v. PLATKIN, et al., Defendants.	Civil Action No. 3:22-cv-04397

Expert Report of Louis Klarevas

I, Louis Klarevas, declare:

1. This report is based on my own personal knowledge and experience, and, if I am called as a witness, I could and would testify competently to the truth of the matters discussed in this report.

PROFESSIONAL QUALIFICATIONS

2. I am a security policy analyst and, currently, Research Professor at Teachers College, Columbia University, in New York. I am also the author of the book *Rampage Nation*, one of the most comprehensive studies on gun massacres in the United States.¹

3. I am a political scientist by training, with a B.A. from the University of Pennsylvania and a Ph.D. from American University. During the course of my nearly 25-year career as an academic, I have served on the faculties of George Washington University, the City University of New York, New York University, and the University of Massachusetts. I have also served as Defense Analysis Research Fellow at the London School of Economics and Political Science and as United States Senior Fulbright Scholar in Security Studies at the University of Macedonia.

4. My current research examines the nexus between American public safety and gun violence, including serving as an investigator in a study funded by the National Institutes of Health that focuses on reducing intentional shootings at elementary and secondary schools.

5. In addition to having made over 100 media and public-speaking appearances, I am the author or co-author of more than 20 scholarly articles and over 70 commentary pieces. In 2019, my peer-reviewed article on the effectiveness of restrictions on large-capacity magazines (LCMs) in reducing high-fatality mass shootings that result in six or more victims killed was published in the *American Journal of Public Health*.² This study found that jurisdictions with

¹ Louis Klarevas, *Rampage Nation: Securing America from Mass Shootings* (2016).

² Louis Klarevas, et al., “The Effect of Large-Capacity Magazine Bans on High-Fatality Mass Shootings,” 109 *American Journal of Public Health* 1754 (2019), available at <https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2019.305311> (last accessed February 11, 2023).

LCM bans experienced substantially lower gun massacre incidence and fatality rates when compared to jurisdictions not subject to similar bans. Despite being over 3 years old now, this study continues to be one of the highest impact studies in academia. It was recently referred to as “the perfect gun policy study,” in part due to the study’s “robustness and quality.”³

6. Since January 1, 2019, I have been deposed, testified in court, or testified by declaration in the following cases (all in federal court), listed alphabetically by state:

California – Central District

Rupp v. Bonta 8:17-cv-00746-JLS-JDE

California – Eastern District

Wiese v. Bonta 2:17-cv-00903-WBS-KJN

California – Southern District

Duncan v. Bonta 17-cv-1017-BEN-JLB

Jones v. Bonta 19-cv-01226-L-AHG

Miller v. Bonta 3:19-cv-1537-BEN-JBS

Nguyen v. Bonta 3:20-cv-02470-WQH-MDD

Colorado

Gates v. Polis 1:22-cv-01866-NYW-SKC

Connecticut

National Association for Gun Rights v. Lamont 3:22-cv-01118-JBA

Hawaii

National Association for Gun Rights v. Lopez 1:22-cv-404-DKW-RT

Illinois – Northern District

Viramontes v. Cook County 1:21-cv-04595

National Association for Gun Rights v. Highland Park 22-cv-04774

Herrera v. Raoul 1:23-cv-00532

Illinois – Southern District

*Harrel v. Raoul** 23-cv-141-SPM

*Langley v. Kelly** 23-cv-192-SPM

*Barnett v. Raoul** 23-cv-209-SPM

*Federal Firearms Licensees of Illinois v. Pritzker** 23-cv-215-SPM

Kenneally v. Raoul 3:23-cv-50039

³ Lori Ann Post and Maryann Mason, “The Perfect Gun Policy Study in a Not So Perfect Storm,” 112 *American Journal of Public Health* 1707 (2022), available at <https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2022.307120> (last accessed February 11, 2023). According to Post and Mason, “Klarevas et al. employed a sophisticated modeling and research design that was more rigorous than designs used in observational studies. Also, they illustrated the analytic steps they took to rule out alternative interpretations and triangulate their findings, for example examining both state bans and federal bans. They helped build the foundation for future studies while overcoming the limitations of previous research.” *Ibid.*

Massachusetts

National Association for Gun Rights v. Campbell

1:22-cv-11431-FDS

Oregon

Oregon Firearms Federation v. Koteck[†]

2:22-cv-01815-IM

Fitz v. Rosenblum[†]

3:22-cv-01859-IM

Eyre v. Rosenblum[†]

3:22-cv-01862-IM

Azzopardi v. Rosenblum[†]

3:22-cv-01869-IM

Washington – Eastern District

Brumback v. Ferguson

1:22-cv-03093-MKD

Banta v. Ferguson

2:23-cv-00112-MKD

Washington – Western District

Hartford v. Ferguson

3:23-cv-05364-RJB

*Non-Consolidated Cases on the Same Briefing Schedule / †Consolidated Cases

7. In 2021, I was retained by the Government of Canada in the following cases which involved challenges to Canada's regulation of certain categories of firearms: *Parker and K.K.S. Tactical Supplies Ltd. v. Attorney General of Canada*, Federal Court, Court File No.: T-569-20; *Canadian Coalition for Firearm Rights, et al. v. Attorney General of Canada*, Federal Court, Court File No.: T-577-20; *Hipwell v. Attorney General of Canada*, Federal Court, Court File No.: T-581-20; *Doherty, et al. v. Attorney General of Canada*, Federal Court, Court File No.: T-677-20; *Generoux, et al. v. Attorney General of Canada*, Federal Court, Court File No.: T-735-20; and *Eichenberg, et al. v. Attorney General of Canada*, Federal Court, Court File No.: T-905-20. I testified under oath in a consolidated court proceeding involving all six cases in the Federal Court of Canada.

8. I have also submitted declarations in the following state court cases: *People of Colorado v. Sgaggio*, District Court, El Paso County, Colorado, 2022M005894 (Criminal); and *Guardian Arms v. Inslee*, Superior Court, Grant County, Washington, 23-2-00377-13 (Civil).

9. A true and correct copy of my current curriculum vitae is attached as **Exhibit A** to this report.

10. I am being compensated at a rate of \$480/hour for my work on this report, \$600/hour for any testimony in connection with this matter, and \$120/hour for travel required to provide testimony.

OPINIONS

11. It is my professional opinion, based upon my analysis of the data reviewed herein, that (1) in terms of individual acts of intentional criminal violence, mass shootings presently pose the deadliest threat to the safety of American society in the post-9/11 era, and the problem is growing nationwide; (2) high-fatality mass shootings involving assault weapons and/or LCMs, on average, have resulted in a substantially larger loss of life than similar incidents that did not involve assault weapons and/or LCMs; (3) mass shootings resulting in double-digit fatalities are relatively modern phenomena in American history, often related to the use of assault weapons and LCMs; (4) assault weapons are used by private citizens with a far greater frequency to perpetrate mass shootings than to stop mass shootings; (5) handguns, as opposed to rifles (let alone rifles that qualify as assault weapons), are the most commonly owned firearms in the United States; and (6) states that restrict both assault weapons and LCMs experience fewer high-fatality mass shooting incidents and fatalities, per capita, than states that do not restrict assault weapons and LCMs. Based on these findings, it is my opinion that restrictions on assault weapons and LCMs have the potential to save lives by reducing the frequency and lethality of gun massacres.⁴

⁴ For purposes of this report, mass shootings are defined in a manner consistent with my book *Rampage Nation*, *supra* note 1 (see Excerpt Attached as **Exhibit B**). “Mass shootings” are shootings resulting in four or more victims being shot (fatally or non-fatally), regardless of location or underlying motive. As a subset of mass shootings, “high-fatality mass shootings” (also referred to as “gun massacres”) are defined as shootings resulting in 6 or more victims being shot to death, regardless of location or underlying motive. The data on high-fatality mass shootings is from a data set that I maintain and continuously update. This data set is reproduced in **Exhibit C**. Unless stated otherwise, all of the data used to perform original analyses and to construct tables and figures in Sections I, II, and VI of this report are drawn from **Exhibit C**.

I. MASS SHOOTINGS ARE A GROWING THREAT TO PUBLIC SAFETY

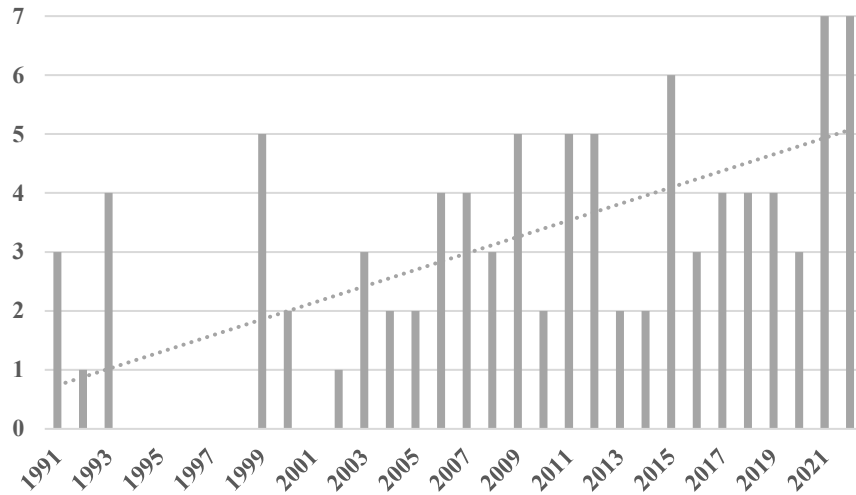
12. Examining mass-casualty acts of violence in the United States since 1991 points to two disturbing patterns.⁵ First, as demonstrated in Table 1, the deadliest individual acts of intentional criminal violence in the United States since the terrorist attack of September 11, 2001, have all been mass shootings. Second, as displayed in Figures 1-2, the problem of high-fatality mass shooting violence is on the rise. To put the increase over the last three decades into perspective, between the 1990s and the 2010s, the average population of the United States increased approximately 20%. However, when the number of people killed in high-fatality mass shootings in the 1990s is compared to the number killed in such incidents in the 2010s, it reflects an increase of 260%. In other words, the rise in gun massacre violence has far outpaced the rise in national population—by a factor of 13. The obvious takeaway from these patterns and trends is that mass shootings pose a significant—and growing—threat to American public safety.

Table 1. The Deadliest Acts of Intentional Criminal Violence in the U.S. since 9/11

	Deaths	Date	Location	Type of Violence
1	60	October 1, 2017	Las Vegas, NV	Mass Shooting
2	49	June 12, 2016	Orlando, FL	Mass Shooting
3	32	April 16, 2007	Blacksburg, VA	Mass Shooting
4	27	December 14, 2012	Newtown, CT	Mass Shooting
5	25	November 5, 2017	Sutherland Springs, TX	Mass Shooting
6	23	August 3, 2019	El Paso, TX	Mass Shooting
7	21	May 24, 2022	Uvalde, TX	Mass Shooting

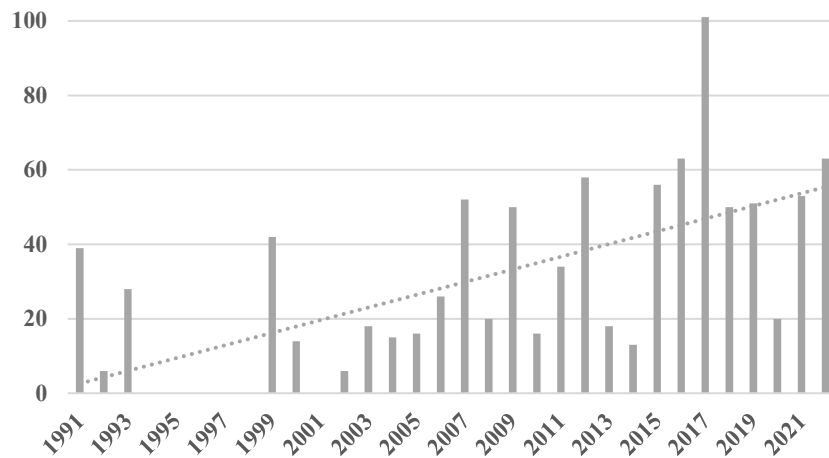
⁵ Because the analysis in Section VI of this report necessarily uses data from 1991 through 2022, for purposes of consistency (and to avoid any confusion), the analyses in Sections I and II also use data from 1991 through 2022.

Figure 1. Annual Trends in High-Fatality Mass Shooting Incidents, 1991-2022



Note: The dotted line is a linear trendline. A linear trendline is a straight line that captures the overall pattern of the individual data points. When there is a positive relationship between the x-axis and y-axis variables, the trendline moves upwards from left to right. When there is a negative relationship between the x-axis and y-axis variables, the trendline moves downwards from left to right.

Figure 2. Annual Trends in High-Fatality Mass Shooting Fatalities, 1991-2022



Note: The dotted line is a linear trendline. A linear trendline is a straight line that captures the overall pattern of the individual data points. When there is a positive relationship between the x-axis and y-axis variables, the trendline moves upwards from left to right. When there is a negative relationship between the x-axis and y-axis variables, the trendline moves downwards from left to right.

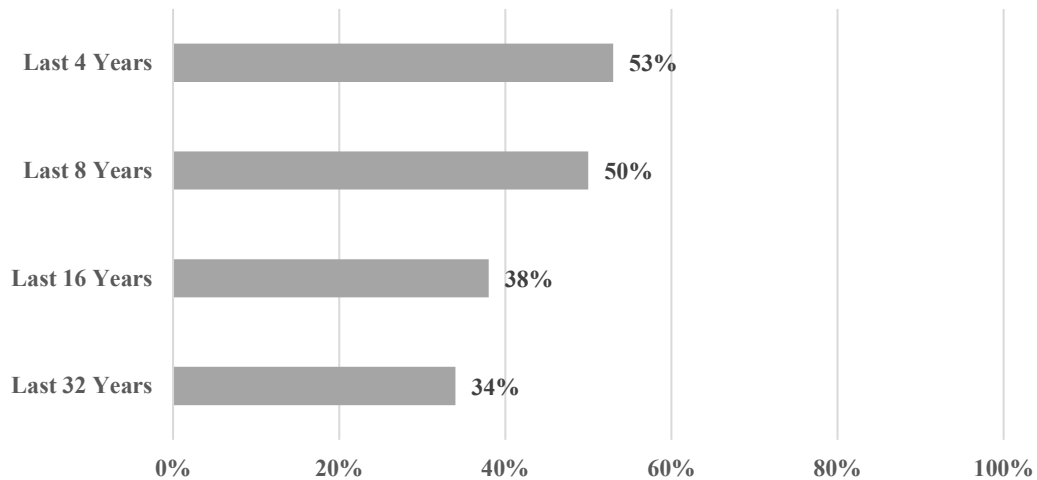
II. THE USE OF ASSAULT WEAPONS AND LCMs ARE MAJOR FACTORS IN THE RISE OF MASS SHOOTING VIOLENCE

13. In addition to showing that the frequency and lethality of high-fatality mass shootings are on the rise nationally, the data point to another striking pattern: both assault weapons and LCMs are being used with increased frequency to perpetrate gun massacres.⁶ As shown in Figures 3-4, based on high-fatality mass shootings where details allow a determination on the use of assault weapons and LCMs are available, over half of all incidents in the last four years involved assault weapons and all incidents in the last four years involved LCMs having a capacity greater than 10 bullets. As shown in Figures 5-6, a similar pattern emerges when examining deaths in high-fatality mass shootings in the last four years, with 62% of deaths resulting from incidents involving assault weapons and 100% of deaths resulting from incidents involving LCMs having a capacity greater than 10 bullets. These trends demonstrate that, among perpetrators of gun massacres, there is a growing preference for using assault weapons and LCMs to carry out their attacks.⁷

⁶ Assault weapons are generally semiautomatic firearms that fall into one of the following three categories: assault pistols, assault rifles, and assault shotguns. For purposes of this report, unless otherwise stated, assault weapons and LCMs are defined and coded in a manner consistent with the definitions used in **Exhibit C**. As stated in **Exhibit C**: “For purposes of this Exhibit, a high-fatality mass shooting was coded as involving an assault weapon if at least one of the firearms discharged was defined as an assault weapon in (1) the 1994 federal Assault Weapons Ban or (2) the statutes of the state where the shooting occurred. For purposes of this Exhibit, a high-fatality mass shooting was coded as involving a large-capacity magazine if at least one of the firearms discharged had an ammunition-feeding device with a capacity of more than 10 bullets.”

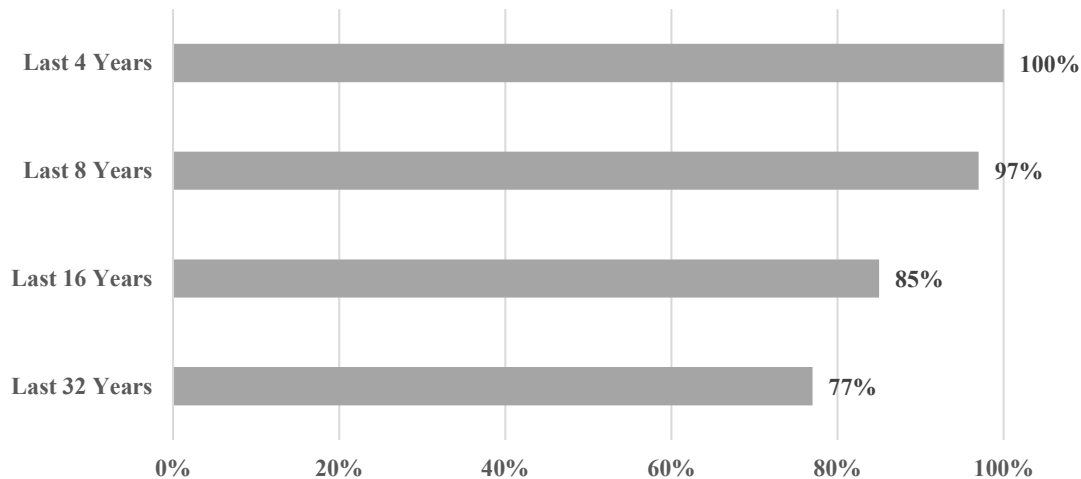
⁷ Out of all 93 high-fatality mass shootings in the United States between 1991 and 2022, it cannot be determined whether LCMs were used in 14 of those incidents. Furthermore, for two of these 14 incidents, it is also not possible to determine whether they involved assault weapons. Therefore, the tables, figures, and percentages discussed in this section of this report are based on calculations that only use data points from the incidents in which the involvement of assault weapons and/or LCMs could be determined.

Figure 3. Share of High-Fatality Mass Shooting Incidents Involving Assault Weapons, 1991-2022



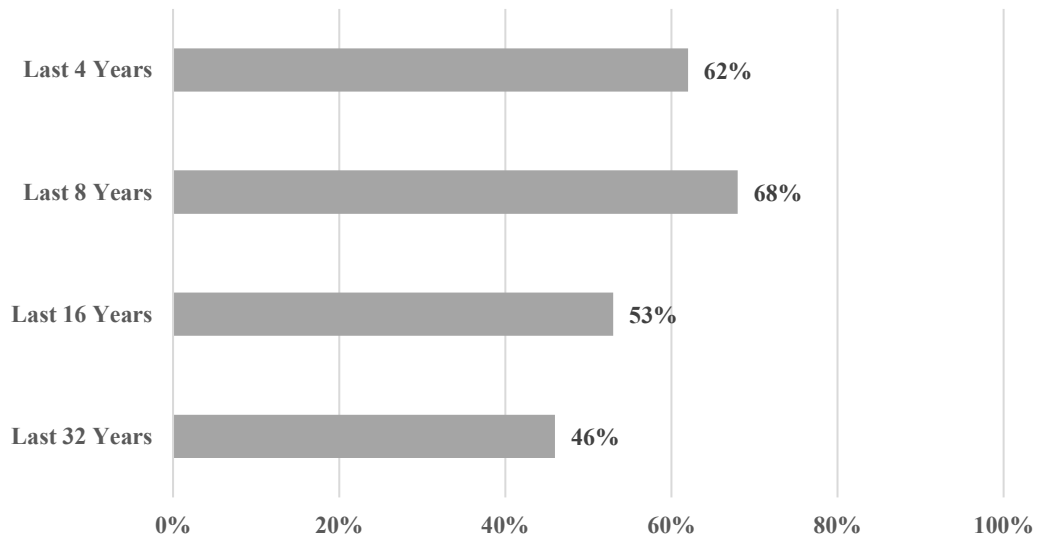
Note: The calculations in Figure 3 exclude incidents in which the firearms used are unknown.

Figure 4. Share of High-Fatality Mass Shooting Incidents Involving LCMs (Ammunition Capacity Greater Than 10 Rounds), 1991-2022



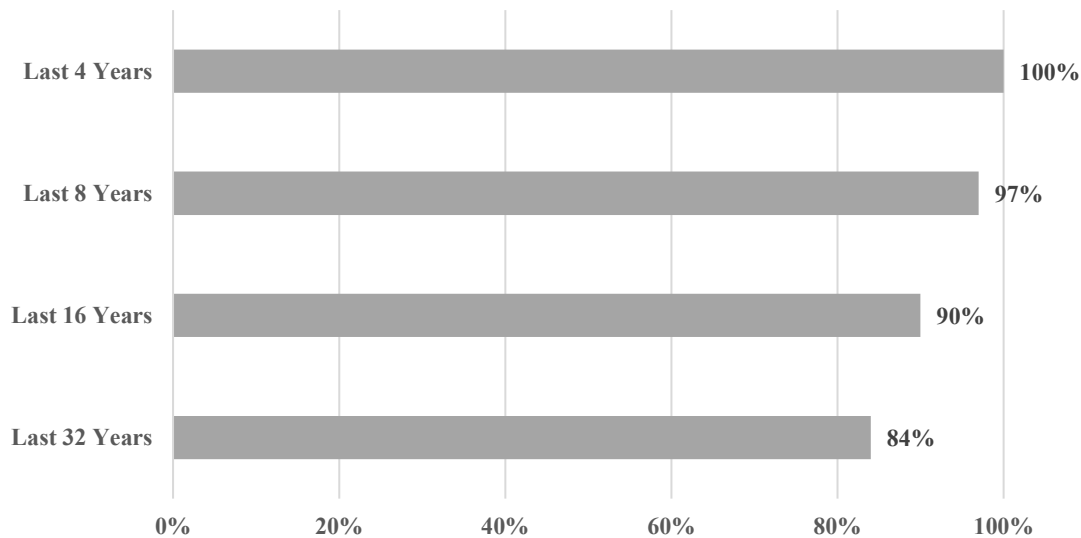
Note: The calculations in Figure 4 exclude incidents in which it is unknown if LCMs were used.

Figure 5. Share of High-Fatality Mass Shooting Deaths Resulting from Incidents Involving Assault Weapons, 1991-2022



Note: The calculations in Figure 5 exclude incidents in which the firearms used are unknown.

Figure 6. Share of High-Fatality Mass Shooting Deaths Resulting from Incidents Involving LCMs (Ammunition Capacity Greater Than 10 Rounds), 1991-2022



Note: The calculations in Figure 6 exclude incidents in which it is unknown if LCMs were used.

14. The growing use of assault weapons to carry out high-fatality mass shootings is an obvious theme reflected in the data. The *disproportionate* resort to assault weapons by perpetrators of high-fatality mass shootings is another clear theme. Based on National Sport Shooting Foundation (NSSF) and federal government data, “modern sporting rifles”—which is a firearm industry term for AR-15-platform and AK-47-platform firearms—make up approximately 5.3% of all firearms in circulation in American society, according to the most recent publicly-available data (24.4 million out of an estimated 461.9 million firearms).⁸ And, in all likelihood, this is an over-estimation because the figures appear to include firearms belonging to law enforcement and security agencies, firearms retailers, and possibly prohibited possessors (e.g., violent criminals) in the United States.⁹ But even using this estimate, if assault weapons were used in proportion to the percentage of modern sporting rifles in circulation, approximately 5% of all high-fatality mass shootings would involve assault weapons. However, as seen in Figure 3 above, civilian ownership rates and mass-shooter use rates are not similar. Indeed, the

⁸ The 5.3% ownership rate for modern sporting rifles was calculated using NSSF and Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) data. The NSSF estimates that there are approximately 24.4 million modern sporting rifles in civilian hands in the United States as of the end of 2020 (when the most recent data are available). NSSF, “Commonly Owned: NSSF Announces over 24 Million MSRs in Circulation,” July 20, 2022, *available at* <https://www.nssf.org/articles/commonly-owned-nssf-announces-over-24-million-msrs-in-circulation> (last accessed January 3, 2023). In a 2020 report that captured data through the end of 2018, the NSSF estimated that there were 433.9 million total firearms in civilian circulation in the United States. NSSF, *Firearm Production in the United States with Firearm Import and Export Data*, Industry Intelligence Report, 2020, at 18, *available at* <https://www.nssf.org/wp-content/uploads/2020/11/IIR-2020-Firearms-Production-v14.pdf> (last accessed January 3, 2023). According to ATF data, in 2019 and 2020, an additional 28.0 million firearms entered the civilian stock nationwide. ATF, *National Firearms Commerce and Trafficking Assessment: Firearms in Commerce* (2022), at 181, 188, 193, *available at* <https://www.atf.gov/firearms/docs/report/national-firearms-commerce-and-trafficking-assessment-firearms-commerce-volume/download> (last accessed January 3, 2023). Assuming these figures reported by the NSSF and ATF are accurate, this brings the estimated number of firearms in civilian circulation through the end of 2020 to approximately 461.9 million. The ownership rate is calculated as follows: 24.4 million modern sporting rifles divided by 461.9 million total firearms equals approximately 5.3%.

⁹ ATF, 2022, *supra* note 8, at 12; NSSF, 2020, *supra* note 8, at 2-3.

current difference is approximately ten-fold, with the rate at which assault weapons are now used to commit gun massacres far outpacing the rate at which modern sporting rifles circulate amongst civilians in the United States.¹⁰

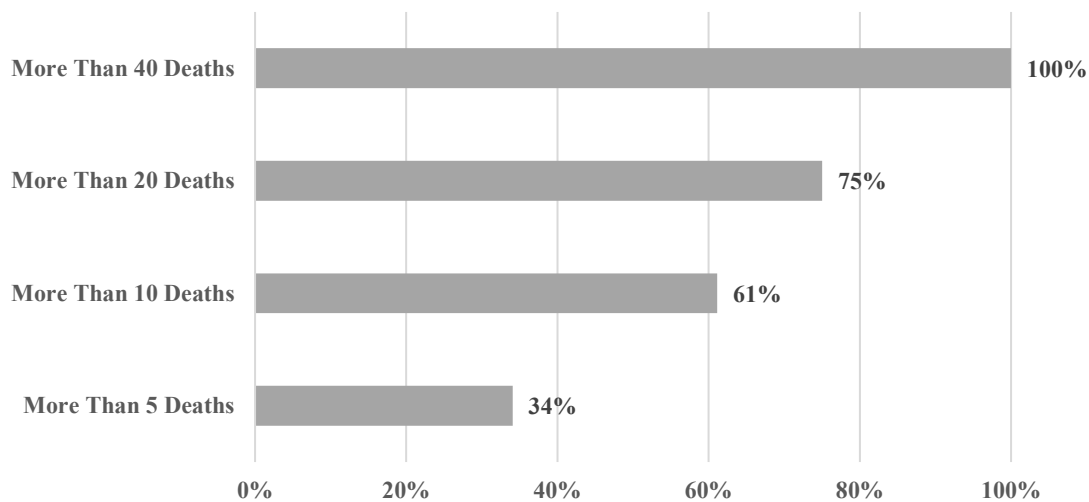
15. Another pattern that stands out when examining the relationship between assault weapons use and gun massacre violence reflects the disproportionately greater lethality associated with the use of assault weapons and LCMs. For instance, returning to the aforementioned list of the seven deadliest individual acts of intentional criminal violence in the United States since the coordinated terrorist attack of September 11, 2001, besides all seven of the incidents being mass shootings, six of the seven incidents (86%) involved assault weapons and LCMs, as shown in Table 2. When examining all high-fatality mass shootings since 1991, the relationship between assault weapons use, LCM use, and higher death tolls is striking. In the past 32 years, assault weapons and LCMs with an ammunition capacity greater than 10 rounds have been used, respectively, in 34% and 77% of all high-fatality mass shootings. However, as the fatality thresholds of such incidents increase, so too do the shares of incidents involving assault weapons and LCMs. For instance, assault weapons and LCMs were used, respectively, in 75% and 100% of all mass shootings resulting in more than 20 deaths (Figures 7-8). As the data show, there is an association between mass shooting lethality and the use of assault weapons and LCMs.

¹⁰ Due to the lack of accurate data on the number of LCMs in civilian circulation, there is no way to perform a similar comparison using LCMs instead of modern sporting rifles.

Table 2. The Use of Assault Weapons and LCMs in the Deadliest Acts of Intentional Criminal Violence in the U.S. since 9/11

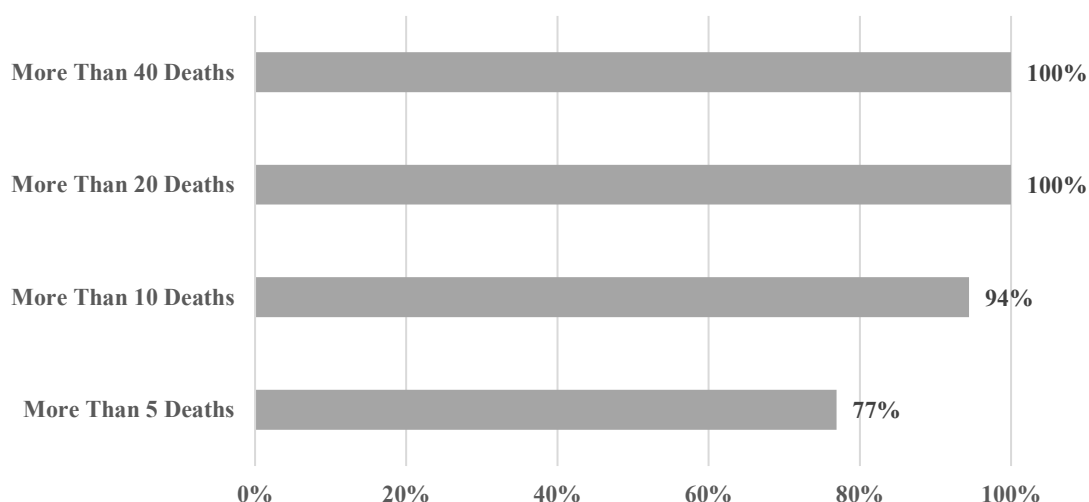
Deaths	Date	Location	Involved Assault Weapons	Involved LCMs (> 10 Rounds)
60	10/1/2017	Las Vegas, NV	✓ (AR-15)	✓
49	6/12/2016	Orlando, FL	✓ (AR-15)	✓
32	4/16/2007	Blacksburg, VA		✓
27	12/14/2012	Newtown, CT	✓ (AR-15)	✓
25	11/5/2017	Sutherland Springs, TX	✓ (AR-15)	✓
23	8/3/2019	El Paso, TX	✓ (AK-47)	✓
21	5/24/2022	Uvalde, TX	✓ (AR-15)	✓

Figure 7. Percentage of High-Fatality Mass Shootings Involving Assault Weapons by Fatality Threshold, 1991-2022



Note: The calculations in Figure 7 exclude incidents in which the firearms used are unknown.

Figure 8. Percentage of High-Fatality Mass Shootings Involving LCMs (Ammunition Capacity Greater Than 10 Rounds) by Fatality Threshold, 1991-2022



Note: The calculations in Figure 8 exclude incidents in which it is unknown if LCMs were used.

16. Of the 91 high-fatality mass shootings since January 1, 1991, in which the type of firearm used is known, 31 involved assault weapons, resulting in 425 deaths. The average death toll for these 31 incidents is 13.7 fatalities per shooting. By contrast, the average death toll for the 60 incidents in which it is known assault weapons were not used (which resulted in 490 fatalities) is 8.2 fatalities per shooting (Table 3). Furthermore, of the 79 high-fatality mass shootings since January 1, 1991, in which LCM use was determined, 61 involved LCMs with an ammunition capacity greater than 10 rounds, resulting in 704 deaths. The average death toll for these 61 incidents is 11.5 fatalities per shooting. The average death toll for the 18 incidents in which it is known LCMs were not used (which resulted in 132 fatalities) is 7.3 fatalities per shooting (Table 4). In other words, in the last 32 years, the use of assault weapons and LCMs in gun massacres has resulted, correspondingly, in 67% and 58% increases in average fatalities per incident (Tables 3-4).

17. Table 5 shows the average death tolls per high-fatality mass shooting incident that are attributable to assault weapons beyond deaths associated with the use of LCMs. When LCMs with an ammunition capacity greater than 10 rounds are not used, the average death toll is 7.3 fatalities. When LCMs are used, but not in conjunction with assault weapons, the average death toll is 9.2 fatalities. When LCMs are used with assault weapons, the average death toll is 14.0 fatalities. The data show that using LCMs without an assault weapon resulted in a 26% increase in the average death toll. However, using LCMs with an assault weapon resulted in a 52% increase in the average death toll associated with incidents that involved LCMs without assault weapons and a 92% increase in the average death toll associated with incidents that involved neither LCMs nor assault weapons.

18. This review of the data suggests that assault weapons and LCMs are force multipliers when used in mass shootings.

Table 3. The Average Death Tolls Associated with the Use of Assault Weapons in High-Fatality Mass Shootings in the U.S., 1991-2022

	Average Death Toll for Incidents That Did Not Involve the Use of Assault Weapons	Average Death Toll for Incidents That Did Involve the Use of Assault Weapons	Percent Increase in Average Death Toll Associated with the Use of Assault Weapons
1991-2022	8.2 Deaths	13.7 Deaths	67%

Note: The calculations in Table 3 exclude incidents in which the firearms used are unknown.

Table 4. The Average Death Tolls Associated with the Use of LCMs (Ammunition Capacity Greater Than 10 Rounds) in High-Fatality Mass Shootings in the U.S., 1991-2022

	Average Death Toll for Incidents That Did Not Involve the Use of LCMs	Average Death Toll for Incidents That Did Involve the Use of LCMs	Percent Increase in Average Death Toll Associated with the Use of LCMs
1991-2022	7.3 Deaths	11.5 Deaths	58%

Note: The calculations in Table 4 exclude incidents in which it is unknown if LCMs were used.

Table 5. The Average Death Tolls Associated with the Use of LCMs (Ammunition Capacity Greater Than 10 Rounds) and Assault Weapons in High-Fatality Mass Shootings in the U.S., 1991-2022

Average Death Toll for Incidents Not Involving LCMs or AWs	Average Death Toll for Incidents Involving LCMs but Not AWs	Percent Increase	Average Death Toll for Incidents Involving LCMs but Not AWs	Average Death Toll for Incidents Involving LCMs and AWs	Percent Increase	Average Death Toll for Incidents Not Involving LCMs or AWs	Average Death Toll for Incidents Involving LCMs and AWs	Percent Increase
7.3	9.2	26%	9.2	14.0	52%	7.3	14.0	92%

Note: The calculations in Table 5 exclude incidents in which it is unknown if assault weapons and/or LCMs were used.

III. DOUBLE-DIGIT-FATALITY MASS SHOOTINGS ARE A POST-WORLD WAR II PHENOMENON IN AMERICAN HISTORY AND THEY INCREASINGLY INVOLVE ASSAULT WEAPONS

19. I have also examined the historical occurrence and distribution of mass shootings resulting in 10 or more victims killed since 1776 (Table 6 and Figure 9).¹¹ In terms of the origins of this form of extreme gun violence, there is no known occurrence of a mass shooting resulting in double-digit fatalities during the 173-year period between the nation's founding in 1776 and 1948. The first known mass shooting resulting in 10 or more deaths occurred in 1949. In other words, for 70% of its 247-year existence as a nation, the United States did not experience a *single* mass shooting resulting in double-digit fatalities. They are relatively modern phenomena in American history.¹²

20. After the first such incident in 1949, 17 years passed until a similar mass shooting occurred in 1966. The third such mass shooting then occurred nine years later, in 1975. And the fourth such incident occurred seven years after, in 1982. Basically, the first few mass shootings resulting in 10 or more deaths did not occur until the post-World War II era. Furthermore, these first few double-digit-fatality incidents occurred with relative infrequency, although the temporal gap between these first four incidents shrank with each event (Table 6 and Figure 10).¹³

¹¹ I searched for firearm-related "murders," using variations of the term, setting a minimum fatality threshold of 10 in the Newspaper Archive online newspaper repository, available at www.newspaperarchive.com (last accessed October 2, 2022). The Newspaper Archive contains local and major metropolitan newspapers dating back to 1607. Incidents of large-scale, inter-group violence such as mob violence, rioting, combat or battle skirmishes, and attacks initiated by authorities acting in their official capacity were excluded.

¹² Using the Constitution's effective date of 1789 as the starting point would lead to the conclusion that, for 68% of its 234-year existence as a nation, the United States did not experience a mass shooting resulting in double-digit fatalities.

¹³ Figures 9-10 are reproduced in larger form as **Exhibit D** of this report.

Table 6. Mass Shootings Resulting in Double-Digit Fatalities in U.S. History, 1776-2022

	Date	Location	Deaths	Involved Assault Weapon(s)	Involved LCM(s)
1	9/6/1949	Camden, NJ	13	N	N
2	8/1/1966	Austin, TX	14	N	Y
3	3/30/1975	Hamilton, OH	11	N	N
4	9/25/1982	Wilkes-Barre, PA	13	Y	Y
5	2/18/1983	Seattle, WA	13	N	N
6	4/15/1984	Brooklyn, NY	10	N	N
7	7/18/1984	San Ysidro, CA	21	Y	Y
8	8/20/1986	Edmond, OK	14	N	N
9	10/16/1991	Killeen, TX	23	N	Y
10	4/20/1999	Littleton, CO	13	Y	Y
11	4/16/2007	Blacksburg, VA	32	N	Y
12	3/10/2009	Geneva County, AL	10	Y	Y
13	4/3/2009	Binghamton, NY	13	N	Y
14	11/5/2009	Fort Hood, TX	13	N	Y
15	7/20/2012	Aurora, CO	12	Y	Y
16	12/14/2012	Newtown, CT	27	Y	Y
17	9/16/2013	Washington, DC	12	N	N
18	12/2/2015	San Bernardino, CA	14	Y	Y
19	6/12/2016	Orlando, FL	49	Y	Y
20	10/1/2017	Las Vegas, NV	60	Y	Y
21	11/5/2017	Sutherland Springs, TX	25	Y	Y
22	2/14/2018	Parkland, FL	17	Y	Y
23	5/18/2018	Santa Fe, TX	10	N	N
24	10/27/2018	Pittsburgh, PA	11	Y	Y
25	11/7/2018	Thousand Oaks, CA	12	N	Y
26	5/31/2019	Virginia Beach, VA	12	N	Y
27	8/3/2019	El Paso, TX	23	Y	Y
28	3/22/2021	Boulder, CO	10	Y	Y
29	5/14/2022	Buffalo, NY	10	Y	Y
30	5/24/2022	Uvalde, TX	21	Y	Y

Note: Death tolls do not include perpetrators. An incident was coded as involving an assault weapon if at least one of the firearms discharged was defined as an assault weapon in (1) the 1994 Federal Assault Weapons Ban or (2) the statutes of the state where the gun massacre occurred. An incident was coded as involving an LCM if at least one of the firearms discharged had an ammunition-feeding device holding more than 10 bullets.

Figure 9. Mass Shootings Resulting in Double-Digit Fatalities in U.S. History, 1776-2022

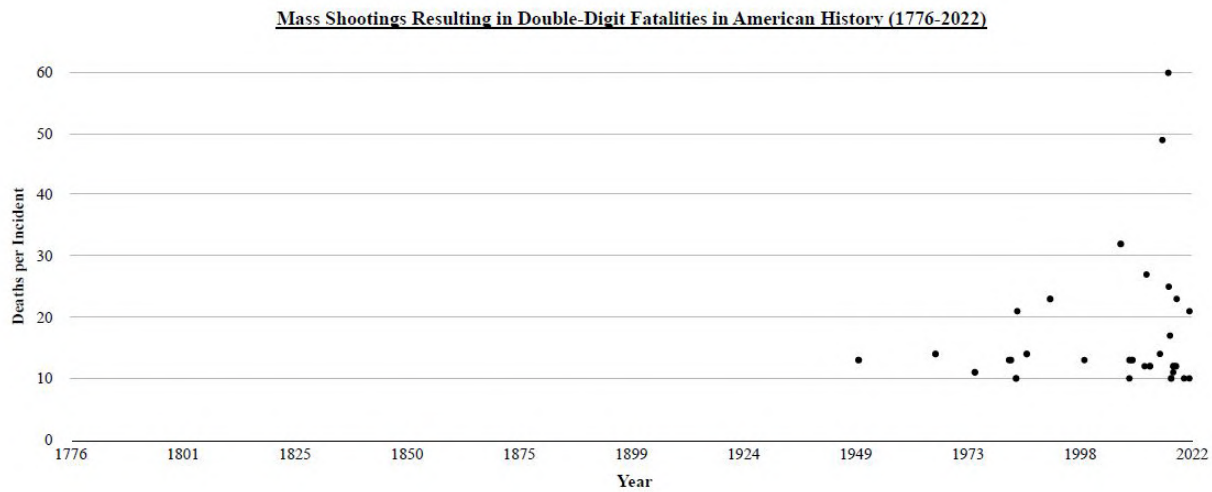
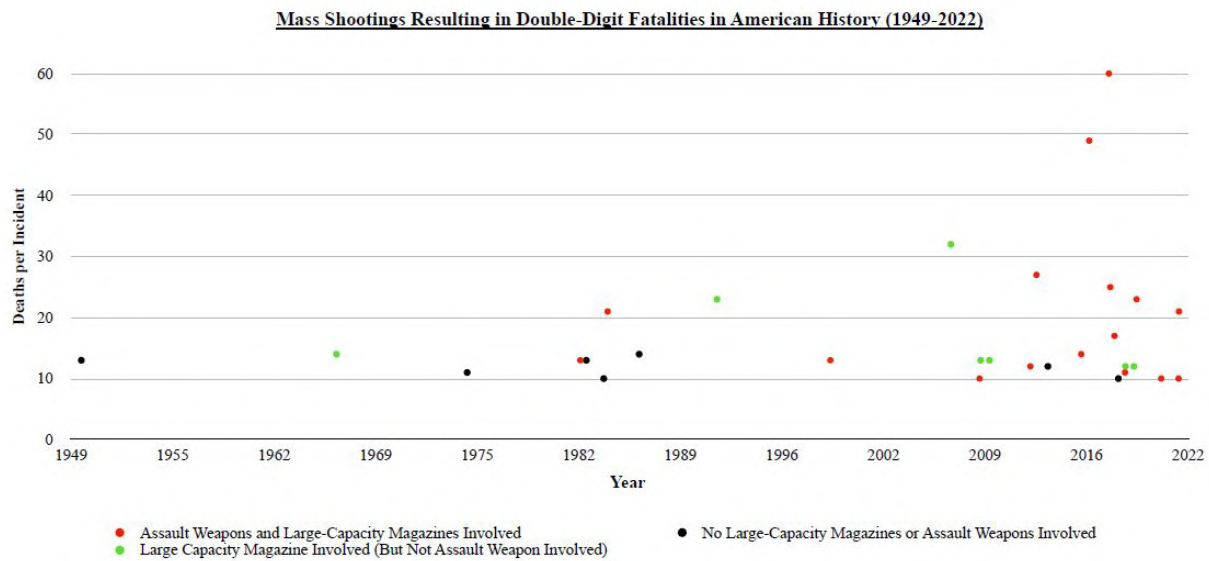


Figure 10. Mass Shootings Resulting in Double-Digit Fatalities in U.S. History, 1949-2022



21. The distribution of double-digit-fatality mass shootings changes in the early 1980s, when five such events took place in a span of just five years (Table 6 and Figure 10). This timeframe also reflects the first time that assault weapons were used to perpetrate mass shootings resulting in 10 or more deaths: the 1982 Wilkes-Barre, PA, massacre (involving an AR-15 rifle and resulting in 13 deaths) and the 1984 San Ysidro, CA, massacre (involving an Uzi pistol and resulting in 21 deaths). But this cluster of incidents was followed by a 20-year period in which only two double-digit-fatality mass shootings occurred (Figure 10). This period of time from 1987-2007 correlates with three important federal firearms measures: the 1986 Firearm Owners Protection Act, the 1989 C.F.R. “sporting use” importation restrictions, and the 1994 Federal Assault Weapons Ban.

22. It is well-documented in the academic literature that, after the Federal Assault Weapons Ban expired in 2004, mass shooting violence increased substantially.¹⁴ Mass shootings that resulted in 10 or more deaths were no exception, following the same pattern. In the 56 years from 1949 through 2004, there were a total of 10 mass shootings resulting in double-digit fatalities (a frequency rate of one incident every 5.6 years). In the 18 years since 2004, there have been 20 double-digit-fatality mass shootings (a frequency rate of one incident every 0.9 years). In other words, the frequency rate has increased over six-fold since the Federal Assault Weapons Ban expired (Table 6 and Figure 10). (The 1994 Federal Assault Weapons Ban and its impact on mass shooting violence is discussed in further detail in Section VI of this report.)

¹⁴ See, for example, Louis Klarevas, *supra* note 1 (Relevant Excerpt Attached as **Exhibit E**); Louis Klarevas, et al., *supra* note 2 (Attached as **Exhibit F**); Charles DiMaggio, et al., “Changes in US Mass Shooting Deaths Associated with the 1994-2004 Federal Assault Weapons Ban: Analysis of Open-Source Data,” 86 *Journal of Trauma and Acute Care Surgery* 11 (2019) (Attached as **Exhibit G**); Lori Post, et al., “Impact of Firearm Surveillance on Gun Control Policy: Regression Discontinuity Analysis,” 7 *JMIR Public Health and Surveillance* (2021) (Attached as **Exhibit H**); and Philip J. Cook and John J. Donohue, “Regulating Assault Weapons and Large-Capacity Magazines for Ammunition,” 328 *JAMA*, September 27, 2022 (Attached as **Exhibit I**).

23. Over three-quarters of the mass shootings resulting in 10 or more deaths involved assault weapons and/or LCMs (Table 6). As also shown in the analyses of mass shootings in Section II, death tolls in double-digit-fatality mass shootings are related to the use of firearm technologies like assault weapons and LCMs that, in terms of mass shootings, serve as force multipliers.

IV. ASSAULT WEAPONS ARE ALMOST NEVER USED BY PRIVATE CITIZENS IN SELF-DEFENSE DURING ACTIVE SHOOTINGS

24. An important question that, until now, has gone unanswered is: Are assault weapons used as frequently to stop mass shootings as they are to perpetrate them? As shown above in Section II, assault weapons have been used in approximately one-third of high-fatality mass shootings in the past 32 years (Figure 3). And in the past eight years, the share of high-fatality mass shootings that have involved assault weapons has risen to approximately half (Figure 3).

25. The Federal Bureau of Investigation (FBI) has been documenting active shooter incidents since 2000.¹⁵ According to the FBI, active shootings are violent attacks that involve “one or more individuals actively engaged in killing or attempting to kill people in a populated area.”¹⁶ A simple way to conceptualize active shooter incidents is to think of them as attempted

¹⁵ All of the information in this section, including definitions and data, are publicly available from the FBI. See FBI, “Active Shooter Safety Resources,” *available at* <https://www.fbi.gov/how-we-can-help-you/safety-resources/active-shooter-safety-resources> (last accessed January 2, 2023).

¹⁶ FBI, *Active Shooter Incidents in the United States in 2022*, April 2023, at 1, *available at* <https://www.fbi.gov/file-repository/active-shooter-incidents-in-the-us-2022-042623.pdf/view> (last accessed May 4, 2023). The FBI adds, “Implicit in this definition is the shooter’s use of one or more firearms. The *active* aspect of the definition inherently implies the ongoing nature of the incidents, and thus the potential for the response to affect the outcome.” *Ibid.* (emphasis in original). In addition to the report on incidents in 2022, the FBI has published seven other reports on active shooter incidents covering the following seven time-periods: 2000-2013, 2014-2015, 2016-2017, 2018, 2019, 2020, and 2021. All of these reports are available at the FBI’s “Active Shooter Safety Resources” website, *supra* note 15.

mass shootings. As part of its analysis of attempted mass shootings, the FBI identifies incidents that involved armed civilians using their personal firearms to intervene, regardless of whether the interventions were successful in stopping the attacks and/or neutralizing the perpetrator(s).

26. In the 23 years between January 1, 2000, and December 31, 2022, the FBI has identified 456 active shootings occurring in the United States. Out of these 456 active shooter incidents, 18 incidents (3.9%) involved defensive gun uses (DGUs) by civilians, excluding law enforcement or armed security.¹⁷ Of these 18 DGUs, the firearm used by an armed private citizen intervening was identifiable in 17 incidents; 14 involved handguns and the remaining three involved long guns (one shotgun, one bolt-action rifle, and one assault rifle).¹⁸ In other words, out of the 17 incidents where an armed civilian intervened and it was possible to identify the DGU firearm, only one incident (5.9%) involved an assault weapon.¹⁹ Within the broader context of all active shooter incidents, only one incident out of 456 in the past 23 years (0.2%) is known to have involved an armed civilian intervening with an assault weapon.²⁰

¹⁷ In 17 of the 18 DGU-involved active shooter incidents, there was an exchange of gunfire. For the one incident that did not involve an exchange of gunfire, the gun (a handgun) was used to detain the active shooter after the shooting had ceased. FBI, *supra* notes 15 and 16.

¹⁸ All 14 DGU incidents that involved handguns also involved armed civilians who held valid concealed-carry permits or were legally carrying their handguns. *Ibid.* In 12 of these 14 incidents, details about the types of handguns used in self-defense were available in news media accounts or in news media photographs from the crime scene. In two of the 14 incidents, the use of concealed handguns was inferred based on details about the shooting reported in news media accounts. There is no evidence that either of these two DGU incidents involved an assault pistol.

¹⁹ The FBI also identifies an incident in which an armed individual (a local firefighter) subdued and detained a school shooter, but there is no evidence that the armed firefighter drew his handgun during the incident. *Ibid.* Moreover, local authorities have refused to comment on whether the firefighter ever drew his handgun. See Carla Field, “Firefighter Was Armed During Takedown of Shooting Suspect, Sheriff Says,” WYFF, October 3, 2016, *available at* <https://www.wyff4.com/article/firefighter-was-armed-during-takedown-of-shooting-suspect-sheriff-says/7147424> (last accessed January 3, 2023). Adding this incident to the 17 DGU-involved incidents where the type of firearm was identifiable would mean that 5.6% (as opposed to 5.9%) of the active shooter incidents, where an armed civilian intervened, involved an assault weapon.

²⁰ FBI, *supra* notes 15 and 16. The one DGU that involved an assault weapon was the 2017 church massacre in Sutherland Springs, Texas. In that incident, an armed private citizen

27. The bottom line is that assault weapons are used by civilians with a far greater frequency to perpetrate mass shootings than to stop mass shootings.²¹

V. OWNERSHIP RATES OF “MODERN SPORTING RIFLES” AND LCMs IN THE U.S.

28. As noted above in Para. 14, based on the most recent publicly-available NSSF and federal government data, modern sporting rifles—such as AR- and AK-platform firearms—appear to make up as many as 5.3% of all firearms in circulation in American society (24.4 million out of an estimated 461.9 million firearms), although this is likely an over-estimate due to the apparent inclusion of modern sporting rifles in the possession of law enforcement and security agencies, firearms retailers, and prohibited owners (such as criminals and domestic abusers). It is also likely that the NSSF’s estimate includes firearms that have been illegally trafficked to other countries, especially neighboring Mexico.²² Based on NSSF figures, 6.4 million gun owners—out of an estimated 81 million Americans who own at least one personal firearm—own modern sporting rifles.²³ In other words, less than 8% of all civilian gun owners

used an AR-15-style assault rifle to wound the perpetrator as he was attempting to flee the scene. While the perpetrator was still able to flee the scene despite being shot, minutes later, he crashed his vehicle trying to escape and then took his life with his own firearm before law enforcement could apprehend him. See Adam Roberts, “Man Who Shot Texas Gunman Shares His Story,” KHBS/KHOG, November 7, 2017, available at <https://www.4029tv.com/article/man-who-shot-texas-church-gunman-shares-his-story/13437943> (last accessed January 3, 2023).

²¹ Given the limitations of the active shooter incident data reported by the FBI, it is not possible to discern whether any of the civilian DGUs involved an armed civilian using a firearm with an LCM at the time of the intervention. As such, it is not possible to perform a similar comparison between mass shootings perpetrated with LCM-equipped firearms and mass shootings thwarted with LCM-equipped firearms.

²² See, for example, Liz Mineo, “Stopping Toxic Flow of Guns from U.S. to Mexico,” *Harvard Gazette*, February 18, 2022, available at <https://news.harvard.edu/gazette/story/2022/02/stopping-toxic-flow-of-gun-traffic-from-u-s-to-mexico> (last accessed May 31, 2023).

²³ In its most recent survey data (2022), the NSSF found that civilian owners of modern sporting rifles own, on average, 3.8 such rifles, with 24% of these owners possessing only one such rifle. NSSF, *Modern Sporting Rifle: Ownership, Usage and Attitudes Toward AR- and AK-Platform Modern Sporting Rifles*, Comprehensive Consumer Report, 2022, at 12, available at

in the United States own modern sporting rifles.²⁴ In terms of the total population of the United States, estimated by the Census Bureau to be approximately 333 million people in 2022, less than 2% of all Americans own a modern sporting rifle.²⁵

29. In addition to the NSSF's estimate that there are 24.4 million modern sporting rifles in civilian circulation in the United States as of the end of 2020, the Plaintiffs draw on a survey conducted by William English to support their estimates about the number of AR-15-style rifles in American society.²⁶ According to English, "about 24.6 million people" have owned "an AR-15 or similar styled rifle."²⁷ In surveying ownership rates, English also found that 0.3% of

<https://www3.nssf.org/share/PDF/pubs/NSSF-MSR-Comprehensive-Consumer-Report.pdf> (last accessed January 16, 2023). The estimate that approximately 6.4 million gun owners possess what the NSSF considers to be modern sporting rifles is calculated by dividing the 3.8 average number of such rifles that each modern sporting rifle owner possesses into the 24.4 million such rifles estimated to be in civilian circulation. This calculation (24.4 million divided by 3.8) equals 6.4 million. Based on survey data, 81 million American adults are estimated to own guns. Andy Nguyen, "Proposed Assault Weapons Ban Won't Turn Gun Owners into Felons Overnight," PolitiFact, The Poynter Institute, August 3, 2022, *available at* <https://www.politifact.com/factchecks/2022/aug/03/instagram-posts/proposed-assault-weapons-ban-wont-turn-gun-owners-> (last accessed January 16, 2023).

²⁴ The finding that less than 8% of all gun owners possess modern sporting rifles is calculated by dividing the 6.4 million modern sporting rifle owners by the 81 million American adults estimated to be gun owners. Taking 6.4 million and dividing it by 81 million equals 7.9%.

²⁵ The Census Bureau's total population estimate for 2022 is 333,287,557 persons. U.S. Census Bureau, "Growth in U.S. Population Shows Early Indication of Recovery Amid COVID-19 Pandemic," December 22, 2022, *available at* <https://www.census.gov/newsroom/press-releases/2022/2022-population-estimates.html#:~:text=DEC.,components%20of%20change%20released%20today> (last accessed January 16, 2023). The finding that less than 2% of all Americans possess modern sporting rifles is calculated by dividing the 6.4 million modern sporting rifle owners by the 333 million persons in United States. Taking 6.4 million and dividing it by 333 million equals 1.9%.

²⁶ Plaintiffs' First Amended Complaint for Declaratory and Injunctive Relief, *Cheeseman, et al. v. Platkin, et al.*, 1:22-cv-04360-RMB-AMD (D.N.J.), July 14, 2022, ECF No. 4, at 15, citing William English, "2021 National Firearms Survey: Updated Analysis Including Types of Firearms Owned," Unpublished Paper (May 13, 2022; Revised September 22, 2022), *available at* https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=4283305 (last accessed March 7, 2023).

²⁷ English, *supra* note 26.

respondents “indicate owning over 100” AR-15 styled rifles.²⁸ Assuming English correctly estimates that 24.6 million people have owned an AR-15 or similarly styled rifle, his survey results indicate that approximately 74,000 people own over 100 such rifles. Moreover, English also reports that 1.3% of all AR-15 style rifle owners (approximately 320,000 people) own between 11 and 100 such rifles.²⁹ Even if, for the sake of argument, these 74,000 people all owned only 101 AR-15s and these additional 320,000 people all owned 11 AR-15s—the lowest possible number in the range that they identified as best capturing the number of AR-15 styled rifles they own—that would mean that, *at the very least, approximately 11 million AR-15 styled rifles are concentrated in the hands of 1.6% of AR-15 owners.*³⁰ As a reminder, 11 million AR-15 style rifles is a conservative estimate calculated using the absolute minimum numbers in the reported ranges of 11-to-100 and 101-or-more.³¹

²⁸ *Ibid.*

²⁹ *Ibid.*

³⁰ As a reminder, the NSSF found that civilian owners of modern sporting rifles own, on average, 3.8 such rifles, with 24% of these owners possessing only one such rifle. NSSF, *supra* note 23. While the NSSF, unlike the English survey, does not report whether respondents in its surveys of modern sporting rifle owners happen to own more than 10, let alone more than 100, modern sporting rifles, NSSF has detected a growing trend toward increased ownership of multiple modern sporting rifles. For instance, in its 2010 survey, it found that 40% of modern sporting rifle owners owned only 1 modern sporting rifle and 60% owned multiple modern sporting rifles, with the average number of modern sporting rifles owned being 2.6. In its 2013 survey, it found that 35% of modern sporting rifle owners owned only 1 modern sporting rifle and 65% owned multiple modern sporting rifles, with the average number of modern sporting rifles owned increasing to 3.1. In its most recent, 2021 survey, the NSSF found that 24% of modern sporting rifle owners owned only 1 modern sporting rifle and 76% owned multiple modern sporting rifles, with the average number of modern sporting rifles owned increasing yet again to 3.8. This speaks to a growing trend in which modern sporting rifles are being purchased by gun owners who already own a modern sporting rifle, resulting in modern sporting rifles being concentrated, relatively speaking, in the hands of those who already own modern sporting rifles. *Ibid.*

³¹ While the English survey is discussed in an unpublished academic paper that is publicly available online, there are significant concerns with the study, which call into question the findings reported in the paper. Arguably, the biggest problem with the English survey (as reported in the unpublished paper) is that it appears to be in serious violation of the Code of Professional Ethics and Practices of the American Association for Public Opinion Research

30. In deriving its estimates, the NSSF often relies on United States government data, particularly ATF data.³² According to the ATF, from 1986 through 2020 (which reflects the most currently-available data), the civilian stock of firearms in the United States has been made up predominantly of handguns.³³ As Figure 11 shows, handguns account for 50% of the civilian stock of firearms, rifles account for 33%, and shotguns account for 17%.

31. According to ATF data, handguns are the most common firearms in civilian circulation; not rifles, and most certainly not modern sporting rifles that qualify as assault weapons.³⁴

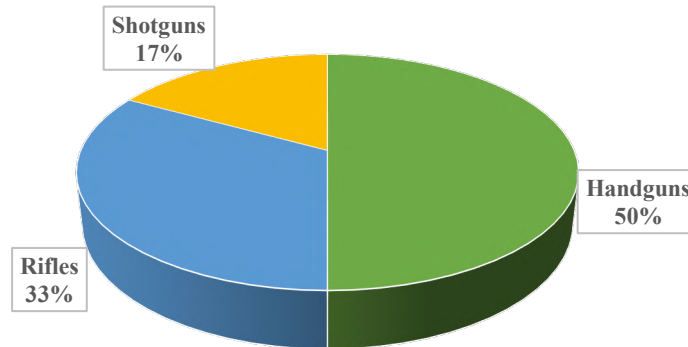
(AAPOR). *See* “AAPOR Code of Professional Ethics and Practices,” April 2021 (Attached as **Exhibit J**). Among the ways that the English survey seemingly runs afoul of AAPOR canons, it fails to identify the source of sponsorship funding and it fails to fully and openly disclose the measurement tools (Rules III.A.2-3). The former is vital to assuring that the survey was not designed and conducted to further the political or economic interests of particular people or organizations. The latter allows independent observers and researchers to assess if, among other factors, question order, question wording, or answer options biased responses. The latter is also crucial to assuring that select findings were not suppressed because they would, if publicized, undermine the agenda of the survey’s sponsor(s). Without release of the entire questionnaire and the full results to the public, it cannot be confirmed that questions and corresponding responses were not suppressed.

³² NSSF, 2020, *supra* note 8.

³³ For data on the number of firearms manufactured, imported, and exported, by category of firearm, from 2000-2020, *see* ATF, *supra* note 8. For similar data covering 1986-1999, *see* ATF, *Firearms Commerce in the United States: Annual Statistical Update, 2021*, available at <https://www.atf.gov/firearms/docs/report/2021-firearms-commerce-report/download> (last accessed January 16, 2023).

³⁴ Due to the lack of accurate data on the number of LCMs in civilian circulation, there is no way to perform a similar analysis of ownership rates using LCMs instead of modern sporting rifles.

Figure 11. Share of Firearms in Civilian Circulation in the United States, 1986-2020

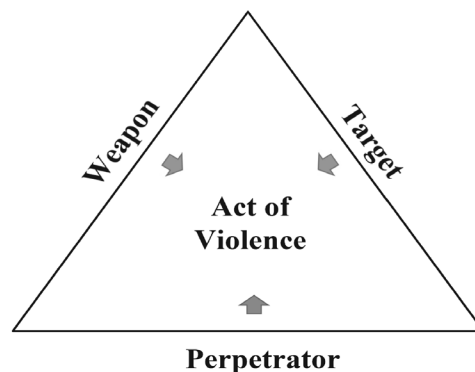


VI. RESTRICTIONS ON ASSAULT WEAPONS AND LCMs REDUCE THE INCIDENCE OF GUN MASSACRES, RESULTING IN LIVES SAVED

VI.A. THE OPERATIVE MECHANISM OF ASSAULT WEAPONS BANS: SUPPRESSION AND SUBSTITUTION EFFECTS

32. As conceptualized in the Trinity of Violence model that I developed in my book on mass shootings, every act of violence involves three elements: a perpetrator, a weapon, and a target (Figure 12).³⁵ The key to mitigating violence is to “break the trinity” by hindering at least one of the three elements. This is accomplished by dissuading the potential offender(s), denying the potential instrument(s) of violence, or defending the potential victim(s).³⁶

Figure 12. The Trinity of Violence



³⁵ Klarevas, *supra* note 1, at 27-29, 229-238.

³⁶ *Ibid.*

33. Bans are law-based concepts that prohibit certain behaviors by criminalizing them.³⁷ Bans on assault weapons and LCMs generally make it illegal to manufacture, import, transfer, own, or possess certain firearms and certain magazines. Bans work in relation to two of the three elements of the Trinity of Violence: dissuasion and denial. With regard to perpetrators, bans use the threat of criminal penalty to *deter potential offenders* from engaging in the prohibited behavior. In the case of bans on assault weapons and LCMs, they threaten conviction, imprisonment, and/or fines should an individual manufacture, import, transfer, or possess a prohibited assault weapon or LCM. One mechanism at work here centers around dissuading potential shooters from trying to build or otherwise acquire banned firearm technologies. But another mechanism focuses on the assault weapon or LCM itself: *deprive potential instruments of violence*. Knowing that someone who is willing to commit murder might not be deterred from violating another criminal law, like possessing a prohibited item, bans on assault weapons and LCMs also threaten punishment against anyone who tries to transfer (through sale, gift, or loan) a restricted item to someone who is prohibited from acquiring it. In essence, the former strategy seeks to dissuade the offender and the latter strategy seeks to deny the instruments of violence.

34. Ideally, someone intent on committing a mass shooting with an assault weapon and/or LCM would be dissuaded from going on a rampage by the fact that their means of choice are not available. In such a scenario, the attack would be quashed. This *suppression effect* is akin to what economists and psychologists refer to as a positive spillover effect, where one desirable outcome produces a second, loosely-related desirable outcome.³⁸ A real-world

³⁷ Philip J. Cook, “Research in Criminal Deterrence: Laying the Groundwork for the Second Decade,” 2 *Crime and Justice* 211 (1980); and Daniel S. Nagin, “Deterrence in the Twenty-First Century,” 42 *Crime and Justice* 199 (2013).

³⁸ Paul Dolan and Mateo M. Galizzi, “Like Ripples on a Pond: Behavioral Spillovers and Their Implications for Research and Policy,” 47 *Journal of Economic Psychology* 1 (2015); K. Jane Muir and Jessica Keim-Malpass, “Analyzing the Concept of Spillover Effects for Expanded Inclusion in Health Economics Research,” 9 *Journal of Comparative Effectiveness Research* 755 (2020).

example of this is the so-called “Matrix Killings,” where a 19-year-old Virginia man blamed *The Matrix* film for driving him to murder his parents with a shotgun (that did not have an LCM). At the time of the crime in 2003, the Federal Assault Weapons Ban was in effect, preventing him from obtaining an assault rifle and LCMs. In a 2013 jailhouse interview, he told CNN, “If I had an assault weapon, things would have been much worse.” He added that had he had an AR-15 instead of a shotgun, he is positive that, after killing his parents, he would have gone on a rampage and “killed as many people as I possibly could.” As he noted, “because I didn’t have an assault weapon, that didn’t happen.”³⁹ In this case, the unavailability of an assault weapon due to the federal ban appears to have suppressed the perpetrator’s impulse to commit a mass shooting.

35. Of course, some potential mass shooters will not be discouraged from going on a killing spree just because their means of choice are unavailable. They will instead replace their desired instruments of violence with available alternatives. This is commonly referred to as the *substitution effect*, wherein an act of violence is still perpetrated, but with a different, less lethal instrument of violence.⁴⁰ A real-world example of the substitution effect at work is the 2019 synagogue rampage in Poway, California. In that attack, the gunman appears to have been unable to acquire an assault rifle and LCMs due to California’s ban on both. Instead, he acquired what is known as a California-compliant semiautomatic rifle (which lacked features such as a pistol grip and a forward hand grip) and 10-round magazines. As a result, the gunman quickly ran out of bullets, and while pausing to reload—which appears to have been extremely difficult given that he did not have assault weapon features on his rifle that facilitated fast reloading—a

³⁹ “Inside the Mind of a Killer,” CNN (Transcripts), August 23, 2013, *available at* <https://transcripts.cnn.com/show/pmt/date/2013-08-23/segment/01> (last accessed January 24, 2023).

⁴⁰ Philip J. Cook, “The Effect of Gun Availability on Violent Crime Patterns,” 455 *Annals of the American Academy of Political and Social Science* 63 (1981); Anthony A. Braga, et al., “Firearm Instrumentality: Do Guns Make Violent Situations More Lethal?” 4 *Annual Review of Criminology* 147 (2021).

congregant chased him away, preventing him from continuing his attack.⁴¹ In this incident, which resulted in one death, California's ban on assault weapons and LCMs worked exactly as intended. It deprived the active shooter of the mechanisms that might have allowed him to kill enough people to surpass the fatality threshold of a mass shooting. Stated differently, if you examine data sets that identify shootings resulting in mass murder, you will not find the Poway synagogue attack on their lists.

36. It might seem perverse to think that restrictions on certain instruments of violence operate on the premise that, if an act of violence cannot be averted, then it will proceed with an alternative instrument. Nevertheless, this is exactly how bans on assault weapons and LCMs work in theory. They suppress the inclinations of potential mass shooters to go on killing rampages in the first place because their means of choice are unavailable. And, should deterrence fail, bans force perpetrators to substitute less lethal instruments for more dangerous, prohibited ones, reducing the casualty tolls of attacks when they do occur.

VI.B. THE OPERATIVE MECHANISM OF LCM BANS: FORCING PAUSES IN ACTIVE SHOOTINGS

37. Restrictions on assault weapons and LCMs also address the multiple advantages LCMs provide to active shooters. Offensively, LCMs increase kill potential. Basically, the more bullets a shooter can fire at a target within a finite amount of time, the more potential wounds they can inflict. Furthermore, the more bullets that strike a victim, the higher the odds that that person will die. These two factors—sustained-fire capability and multiple-impact capability—allow LCMs to increase a shooter's kill potential.

38. When inserted into either a semiautomatic or fully-automatic firearm, an LCM facilitates the ability of an active shooter to fire a large number of rounds at an extremely quick

⁴¹ Elliot Spagat and Julie Watson, "Synagogue Shooter Struggled with Gun, Fled with 50 Bullets," Associated Press, April 30, 2019, available at <https://apnews.com/article/shootings-north-america-us-news-ap-top-news-ca-state-wire-8417378d6b934a8f94e1ea63fd7c0aea> (last accessed January 24, 2023).

rate without pause. This phenomenon—sustained-fire capability—comes in handy when a target is in a gunman’s line of sight for only a few seconds. For example, sustained-fire capability allows a reasonably competent shooter to fire three rounds per second with a semiautomatic firearm and ten rounds per second with an automatic firearm. That results in numerous chances to hit a target in a short window of opportunity, especially when ammunition capacity is large.

39. LCMs also facilitate the ability of a shooter to strike a human target with more than one round. This phenomenon—multiple-impact capability—increases the chances that the victim, when struck by multiple rounds, will die. At least two separate studies have found that, when compared to the fatality rates of gunshot wound victims who were hit by only a single bullet, the fatality rates of those victims hit by more than one bullet were over 60 percent higher.⁴² The implication is straightforward: being able to strike human targets with more than one bullet increases a shooter’s chances of killing their victims. In essence, LCMs are force multipliers when it comes to kill potential—and the evidence from gun massacres supports this conclusion (*see* Section II).

40. In addition to offensive advantages, LCMs also provide the defensive advantage of extended cover. During an active shooting, a perpetrator is either firing their gun or not firing their gun. While pulling the trigger, it is difficult for those in harm’s way to take successful defensive maneuvers. But if the shooter runs out of bullets, there is a lull in the shooting. This precious downtime affords those in the line of fire with a chance to flee, hide, or fight back.

41. There are several examples of individuals fleeing or taking cover while active shooters paused to reload. For instance, in 2012, several first-graders at Sandy Hook Elementary School in Newtown, Connecticut, escaped their attacker as he was swapping out magazines,

⁴² Daniel W. Webster, et al., “Epidemiologic Changes in Gunshot Wounds in Washington, DC, 1983–1990,” 127 *Archives of Surgery* 694 (June 1992); Angela Sauaia, et al., “Fatality and Severity of Firearm Injuries in a Denver Trauma Center, 2000–2013,” 315 *JAMA* 2465 (June 14, 2016).

allowing them to exit their classroom and dash to safety.⁴³ Other well-known examples include the 2007 Virginia Tech and the 2018 Borderline Bar and Grill rampages.⁴⁴ There is also the possibility that someone will rush an active shooter and try to tackle them (or at the very least try to wrestle their weapon away from them) while they pause to reload.⁴⁵ In recent history, there have been numerous instances of gunmen being physically confronted by unarmed civilians while reloading, bringing their gun attacks to an abrupt end. Prominent examples include the 1993 Long Island Rail Road, the 2011 Tucson shopping center, the 2018 Nashville Waffle House, and the 2022 Laguna Woods church shooting rampages.⁴⁶ When there are pauses in the shooting to reload, opportunities arise for those in the line of fire to take life-saving action.

⁴³ See Dave Altimari, et al., “Shooter Paused and Six Escaped,” *Hartford Courant*, December 23, 2012 (Attached as **Exhibit K**).

⁴⁴ Virginia Tech Review Panel, Mass Shootings at Virginia Tech, April 16, 2007: Report of the Virginia Tech Review Panel Presented to Governor Kaine, Commonwealth of Virginia, Revised with Addendum, November 2009, available at <https://scholar.lib.vt.edu/prevail/docs/April16ReportRev20091204.pdf> (last accessed February 1, 2023); “California Bar Shooting: Witnesses Describe Escaping as Gunman Reloaded,” CBS News, December 7, 2018, available at <https://www.cbsnews.com/news/borderline-bar-shooting-thousand-oaks-california-12-dead-witnesses-describe-gunman-storming-in> (last accessed February 1, 2023).

⁴⁵ The longer a shooter can fire without interruption, the longer they can keep potential defenders at bay. The longer potential defenders are kept from physically confronting a shooter, the more opportunity there is for the shooter to inflict damage.

⁴⁶ See, Rich Schapiro, “LIRR Massacre 20 Years Ago: ‘I Was Lucky,’ Says Hero Who Stopped Murderer,” *New York Daily News*, December 7, 2013, available at <http://www.nydailynews.com/new-york/nyc-crime/lirr-massacre-20-years-lucky-hero-stopped-murderer-article-1.1540846> (last accessed February 1, 2023); Sam Quinones and Nicole Santa Cruz, “Crowd Members Took Gunman Down,” *Los Angeles Times*, January 9, 2011, available at <https://www.latimes.com/archives/la-xpm-2011-jan-09-la-na-arizona-shooting-heroes-20110110-story.html> (last accessed February 1, 2023); Brad Schmitt, “Waffle House Hero: Could You Rush Toward a Gunman Who Just Killed People?” *The Tennessean*, April 24, 2018, available at <https://www.tennessean.com/story/news/crime/2018/04/24/waffle-house-hero-could-you-rush-toward-gunman-who-just-killed-people/543943002> (last accessed February 1, 2023); “Parishioners Stop Gunman in Deadly California Church Attack,” NPR, May 16, 2022, available at <https://www.npr.org/2022/05/16/1099168335/parishioners-stop-gunman-in-california-church-shooting> (last accessed February 1, 2023).

VI.C. BANS ON ASSAULT WEAPONS AND LCMs IN PRACTICE

42. In light of the growing threat posed by mass shootings, legislatures have enacted restrictions on assault weapons and LCMs in an effort to reduce the occurrence and lethality of such deadly acts of firearm violence. Prominent among these measures was the 1994 Federal Assault Weapons Ban. In September 1994, moved to action by high-profile shooting rampages that occurred the previous year at a San Francisco law firm and on a Long Island Rail Road commuter train, the U.S. Congress enacted a ban on assault weapons and LCMs that applied to all 50 states plus the District of Columbia, bringing the entire country under the ban.⁴⁷

43. Like the state bans on assault weapons and LCMs that were implemented before it, the federal ban was aimed primarily at reducing mass shooting violence—an objective the ban sought to achieve by prohibiting the manufacture, importation, possession, and transfer of assault weapons and LCMs not legally owned by civilians prior to the date of the law’s effect (September 13, 1994).⁴⁸ Congress, however, inserted a sunset provision in the law which allowed the federal ban to expire in exactly 10 years, if it was not renewed beforehand. As Congress ultimately chose not to renew the law, the federal ban expired on September 13, 2004. In the aftermath of the federal ban’s expiration, mass shooting violence in the United States increased substantially.⁴⁹

44. The legislative intent of the State of New Jersey in enacting the laws being challenged in the present case is similar to that of other legislative bodies that have restricted assault weapons and LCMs: reducing gun violence, especially the frequency and lethality of

⁴⁷ Pub. L. No. 103-322, tit. XI, subtit. A, 108 Stat. 1796, 1996-2010 (codified as former 18 U.S.C. § 922(v), (w)(1) (1994)).

⁴⁸ Christopher Ingraham, “The Real Reason Congress Banned Assault Weapons in 1994—and Why It Worked,” *Washington Post*, February 22, 2018, *available at* <https://www.washingtonpost.com/news/wonk/wp/2018/02/22/the-real-reason-congress-banned-assault-weapons-in-1994-and-why-it-worked> (last accessed January 2, 2023).

⁴⁹ See sources cited *supra* note 14.

mass shootings. Because, on average, the use of assault weapons and LCMs results in higher death tolls in mass shootings, the rationale for imposing restrictions on assault weapons and LCMs is to reduce the loss of life associated with the increased kill potential of such firearm technologies.

45. Currently, 32% of the U.S. population is subject to a ban on both assault weapons and LCMs. The following is a list of the 11 state-level jurisdictions that presently restrict both assault weapons and LCMs: New Jersey (September 1, 1990); Hawaii (July 1, 1992, assault pistols only); Maryland (June 1, 1994, initially assault pistols but expanded to long guns October 1, 2013); Massachusetts (July 23, 1998); California (January 1, 2000); New York (November 1, 2000); the District of Columbia (March 31, 2009); Connecticut (April 4, 2013); Delaware (August 29, 2022); Illinois (January 10, 2023); and Washington (April 25, 2023).⁵⁰ As a reminder, from September 13, 1994 through September 12, 2004, the entire country was also subject to federal ban on both assault weapons and LCMs.

46. In the field of epidemiology, a common method for assessing the impact of laws and policies is to measure the rate of onset of new cases of an event, comparing the rate when and where the laws and policies were in effect against the rate when and where the laws and policies were not in effect. This measure, known as the incidence rate, allows public health experts to identify discernable differences, while accounting for variations in the population, over a set period of time. Relevant to the present case, calculating incidence rates across states, in a manner that captures whether or not bans on both assault weapons and LCMs were in effect during the period of observation, allows for the assessment of the effectiveness of such bans. In addition, fatality rates—the number of deaths, per population, that result from particular events

⁵⁰ The dates in parentheses mark the effective dates on which the listed states became subject to bans on both assault weapons and LCMs.

across different jurisdictions—also provide insights into the impact bans on assault weapons and LCMs have on mass shooting violence.⁵¹

47. Since September 1, 1990, when New Jersey became the first state to ban both assault weapons and LCMs, through December 31, 2022, there have been 93 high-fatality mass shootings in the United States (**Exhibit C**).⁵² Calculating incidence and fatality rates for this time-period, across jurisdictions with and without bans on both assault weapons and LCMs, reveals that states subject to such bans experienced a 56% decrease in high-fatality mass shooting incidence rates. They also experienced a 66% decrease in high-fatality mass shooting fatality rates, regardless of whether assault weapons or LCMs were used (Table 7).⁵³

48. When calculations go a step further and are limited to mass shootings involving assault weapons or LCMs, the difference between the two jurisdictional categories (non-ban and ban states) is even more pronounced. In the time-period from January 1, 1991, through December 31, 2022, accounting for population, states with bans on both assault weapons and LCMs experienced a 62% decrease in the rate of high-fatality mass shootings involving the use of assault weapons or LCMs. Similarly, jurisdictions with such bans in effect experienced a 72%

⁵¹ For purposes of this report, incidence and fatality rates are calculated using methods and principles endorsed by the Centers for Disease Control. *See* Centers for Disease Control and Prevention, *Principles of Epidemiology in Public Health Practice: An Introduction to Applied Epidemiology and Biostatistics* (2012), available at <https://stacks.cdc.gov/view/cdc/13178> (last accessed January 3, 2023).

⁵² There were no state bans on both assault weapons and LCMs in effect prior to September 1, 1990. Therefore, January 1, 1991, is a logical starting point for an analysis of the impact of bans on assault weapons and LCMs. As there were no high-fatality mass shootings in the last four months of 1990, extending the analysis back to September 1, 1990, would make no difference.

⁵³ Between September 13, 1994, and September 12, 2004, the Federal Assault Weapons Ban was in effect. During that 10-year period, all 50 states and the District of Columbia were under legal conditions that restricted assault weapons and LCMs. As such, the entire country is coded as being under a ban on both assault weapons and LCMs during the timeframe that the Federal Assault Weapons Ban was in effect.

decrease in the rate of deaths resulting from high-fatality mass shootings perpetrated with assault weapons or LCMs (Table 7).

49. All of the above epidemiological calculations lead to the same conclusion: when bans on assault weapons and LCMs are in effect, per capita, fewer high-fatality mass shootings occur and fewer people die in such shootings—especially incidents involving assault weapons or LCMs, where the impact is most striking.

50. The main purpose of bans on assault weapons and LCMs is to restrict the availability of assault weapons and LCMs. The rationale is that, if there are fewer assault weapons and LCMs in circulation, then potential mass shooters will either be dissuaded from attacking or they will be forced to use less-lethal firearm technologies, resulting in fewer lives lost.

51. Moreover, forcing active shooters to reload creates critical pauses in an attack. These pauses provide opportunities for people in the line of fire to take life-saving measures (such as fleeing the area, taking cover out of the shooter's sight, and fighting back), which in turn can help reduce casualties.

52. The epidemiological data lend support to the policy choices of New Jersey that seek to enhance public safety through restrictions on civilian access to certain firearms and magazines. While imposing constraints on assault weapons and LCMs will not prevent every mass shooting, the data suggest that legislative efforts to restrict such instruments of violence should result in lives being saved.

Table 7. Incidence and Fatality Rates for High-Fatality Mass Shootings, by Whether or Not Bans on Assault Weapons and LCMs Were in Effect, 1991-2022

	Annual Average Population (Millions)	Total Incidents	Annual Incidents per 100 Million Population	Total Deaths	Annual Deaths per 100 Million Population
All High-Fatality Mass Shootings					
Non-Ban States	162.0	68	1.31	720	13.89
Ban States	135.8	25	0.58	208	4.79
Percentage Decrease in Rate for Ban States			56%		66%
High-Fatality Mass Shootings Involving Assault Weapons or LCMs					
Non-Ban States	162.0	47	0.91	575	11.09
Ban States	135.8	15	0.35	135	3.11
Percentage Decrease in Rate for Ban States			62%		72%

Note: Population data are from U.S. Census Bureau, "Population and Housing Unit Estimates Datasets," *available at* <https://www.census.gov/programs-surveys/popest/data/data-sets.html> (last accessed January 3, 2023).

Executed on June 13th, 2023, at Nassau County, New York.

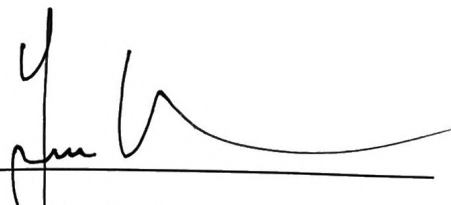
/s/ 
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Associate Lecturer, Department of Global Affairs, University of Massachusetts – Boston, Boston, MA, 2015-2020

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Faculty Advisor, National Youth Leadership Forum, Washington, DC, 1992

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Counter-Terrorism and Homeland Security
International Political Economy
International Politics in a Post-Cold War Era
International Security
Machinery and Politics of American Foreign Policy
Role of the United States in World Affairs
Security Policy
Theories of International Politics
Transnational Security
Transnational Terrorism
United States Foreign Policy

Undergraduate

American Government and Politics
European-Atlantic Relations
International Political Economy
International Relations
Transnational Terrorism
United States Foreign Policy

Scholarship

“State Firearm Laws, Gun Ownership, and K-12 School Shootings: Implications for School Safety,” *Journal of School Violence*, 2022 (co-authored with Paul M. Reeping, Sonali Rajan, et al.)

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“Do the Wrong Thing: Why Penn State Failed as an Institution,” November 14, 2011

“Holding Egypt’s Military to Its Pledge of Democratic Reform,” February 11, 2011

“The Coming Twivolutions? Social Media in the Recent Uprisings in Tunisia and Egypt,” January 31, 2011

“Scholarship Slavery: Does St. John’s ‘Dean of Mean’ Represent a New Face of Human Trafficking?” October 6, 2010

“Misunderstanding Terrorism, Misrepresenting Islam,” September 21, 2010

“Bombing on the Analysis of the Times Square Bomb Plot,” May 5, 2010

“Do the Hutaree Militia Members Pose a Terrorist Threat?” May 4, 2010

“Addressing Mexico’s Gun Violence One Extradition at a Time,” March 29, 2010

“Terrorism in Texas: Why the Austin Plane Crash Is an Act of Terror,” February 19, 2010

“Securing American Primacy by Tackling Climate Change: Toward a National Strategy of Greengemony,” December 15, 2009

“Traffickers Without Borders: A ‘Journey’ into the Life of a Child Victimized by Sex Trafficking,” November 17, 2009

“Beyond a Lingering Doubt: It’s Time for a New Standard on Capital Punishment,” November 9, 2009

“It’s the Guns Stupid: Why Handguns Remain One of the Biggest Threats to Homeland Security,” November 7, 2009

“Obama Wins the 2009 Nobel Promise Prize,” October 9, 2009

Commentaries for *Foreign Policy* – www.foreignpolicy.com

“The White House’s Benghazi Problem,” September 20, 2012

“Greeks Don’t Want a Grexit,” June 14, 2012

“The Earthquake in Greece,” May 7, 2012

“The Idiot Jihadist Next Door,” December 1, 2011

“Locked Up Abroad,” October 4, 2011

Commentaries for *The New Republic* – www.tnr.com/users/louis-klarevas

“What the U.N. Can Do To Stop Getting Attacked by Terrorists,” September 2, 2011

“Is It Completely Nuts That the British Police Don’t Carry Guns? Maybe Not,” August 13, 2011

“How Obama Could Have Stayed the Execution of Humberto Leal Garcia,” July 13, 2011

“After Osama bin Laden: Will His Death Hasten Al Qaeda’s Demise?” May 2, 2011

“Libya’s Stranger Soldiers: How To Go After Qaddafi’s Mercenaries,” February 28, 2011

“Closing the Gap: How To Reform U.S. Gun Laws To Prevent Another Tucson,” January 13, 2011

“Easy Target,” June 13, 2010

“Death Be Not Proud,” October 27, 2003 (correspondence)

Legal Analyses Written for *Writ* – writ.news.findlaw.com/contributors.html#klarevas

“Human Trafficking and the Child Protection Compact Act of 2009,” *Writ* (FindLaw.com), July 15, 2009 (co-authored with Christine Buckley)

“Can the Justice Department Prosecute Reporters Who Publish Leaked Classified Information? Interpreting the Espionage Act,” *Writ* (FindLaw.com), June 9, 2006

“Will the Precedent Set by the Indictment in a Pentagon Leak Case Spell Trouble for Those Who Leaked Valerie Plame's Identity to the Press?” *Writ* (FindLaw.com), August 15, 2005

“Jailing Judith Miller: Why the Media Shouldn’t Be So Quick to Defend Her, and Why a Number of These Defenses Are Troubling,” *Writ* (FindLaw.com), July 8, 2005

“The Supreme Court Dismisses the Controversial Consular Rights Case: A Blessing in Disguise for International Law Advocates?” *Writ* (FindLaw.com), June 6, 2005 (co-authored with Howard S. Schiffman)

“The Decision Dismissing the Lawsuit against Vice President Dick Cheney,” *Writ* (FindLaw.com), May 17, 2005

“The Supreme Court Considers the Rights of Foreign Citizens Arrested in the United States,” *Writ* (FindLaw.com), March 21, 2005 (co-authored with Howard S. Schiffman)

Presentations and Addresses

In addition to the presentations listed below, I have made close to one hundred media appearances, book events, and educational presentations (beyond lectures for my own classes)

“Mass Shootings: What We Know, What We Don’t Know, and Why It All Matters,” keynote presentation to be delivered at the Columbia University Center for Injury Science and Prevention Annual Symposium, virtual meeting, May 2020

“K-12 School Environmental Responses to Gun Violence: Gaps in the Evidence,” paper presented at Society for Advancement of Violence and Injury Research Annual Meeting, virtual meeting, April 2020 (co-authored with Sonali Rajan, Joseph Erardi, Justin Heinze, and Charles Branas)

“Active School Shootings,” Post-Performance Talkback following Presentation of *17 Minutes*, Barrow Theater, New York, January 29, 2020 (co-delivered with Sonali Rajan)

“Addressing Mass Shootings in Public Health: Lessons from Security Studies,” Teachers College, Columbia University, November 25, 2019

“Rampage Nation: Securing America from Mass Shootings,” Swarthmore College, October 24, 2019

“Rampage Nation: Securing America from Mass Shootings,” University of Pennsylvania, February 9, 2018

“Treating Mass Shootings for What They Really Are: Threats to American Security,” Framingham State University, October 26, 2017

“Book Talk: Rampage Nation,” Teachers College, Columbia University, October 17, 2017

Participant, Roundtable on Assault Weapons and Large-Capacity Magazines, Annual Conference on Second Amendment Litigation and Jurisprudence, Law Center to Prevent Gun Violence, October 16, 2017

“Protecting the Homeland: Tracking Patterns and Trends in Domestic Terrorism,” address delivered to the annual meeting of the National Joint Terrorism Task Force, June 2015

“Sovereign Accountability: Creating a Better World by Going after Bad Political Leaders,” address delivered to the Daniel H. Inouye Asia-Pacific Center for Security Studies, November 2013

“Game Theory and Political Theater,” address delivered at the School of Drama, State Theater of Northern Greece, May 2012

“Holding Heads of State Accountable for Gross Human Rights Abuses and Acts of Aggression,” presentation delivered at the Michael and Kitty Dukakis Center for Public and Humanitarian Service, American College of Thessaloniki, May 2012

Chairperson, Cultural Enrichment Seminar, Fulbright Foundation – Southern Europe, April 2012

Participant, Roundtable on “Did the Intertubes Topple Hosni?” Zócalo Public Square, February 2011

Chairperson, Panel on Democracy and Terrorism, annual meeting of the International Security Studies Section of the International Studies Association, October 2010

“Trends in Terrorism Within the American Homeland Since 9/11,” paper to be presented at the annual meeting of the International Security Studies Section of the International Studies Association, October 2010

Panelist, “In and Of the World,” Panel on Global Affairs in the 21st Century, Center for Global Affairs, New York University, March 2010

Moderator, “Primacy, Perils, and Players: What Does the Future Hold for American Security?” Panel of Faculty Symposium on Global Challenges Facing the Obama Administration, Center for Global Affairs, New York University, March 2009

“Europe’s Broken Border: The Problem of Illegal Immigration, Smuggling and Trafficking via Greece and the Implications for Western Security,” presentation delivered at the Center for Global Affairs, New York University, February 2009

“The Dangers of Democratization: Implications for Southeast Europe,” address delivered at the University of Athens, Athens, Greece, May 2008

Participant, “U.S. National Intelligence: The Iran National Intelligence Estimate,” Council on Foreign Relations, New York, April 2008

Moderator, First Friday Lunch Series, “Intelligence in the Post-9/11 World: An Off-the-Record Conversation with Dr. Joseph Helman (U.S. Senior National Intelligence Service),” Center for Global Affairs, New York University, March 2008

Participant, “U.S. National Intelligence: Progress and Challenges,” Council on Foreign Relations, New York, March 2008

Moderator, First Friday Lunch Series, “Public Diplomacy: The Steel Backbone of America’s Soft Power: An Off-the-Record Conversation with Dr. Judith Baroody (U.S. Department of State),” Center for Global Affairs, New York University, October 2007

“The Problems and Challenges of Democratization: Implications for Latin America,” presentation delivered at the Argentinean Center for the Study of Strategic and International Relations Third Conference on the International Relations of South America (IBERAM III), Buenos Aires, Argentina, September 2007

“The Importance of Higher Education to the Hellenic-American Community,” keynote address to the annual Pan-Icarian Youth Convention, New York, May 2007

Moderator, First Friday Lunch Series, Panel Spotighting Graduate Theses and Capstone Projects, Center for Global Affairs, New York University, April 2007

Convener, U.S. Department of State Foreign Officials Delegation Working Group on the Kurds and Turkey, March 2007

“Soft Power and International Law in a Globalizing Latin America,” round-table presentation delivered at the Argentinean Center for the Study of Strategic and International Relations Twelfth Conference of Students and Graduates of International Relations in the Southern Cone (CONOSUR XII), Buenos Aires, Argentina, November 2006

Moderator, First Friday Lunch Series, “From Berkeley to Baghdad to the Beltway: An Off-the-Record Conversation with Dr. Catherine Dale (U.S. Department of Defense),” Center for Global Affairs, New York University, November 2006

Chairperson, Roundtable on Presidential Privilege and Power Reconsidered in a Post-9/11 Era, American Political Science Association Annual Meeting, September 2006

“Constitutional Controversies,” round-table presentation delivered at City University of New York-College of Staten Island, September 2005

“The Future of the Cyprus Conflict,” address to be delivered at City University of New York College of Staten Island, April 2005

“The 2004 Election and the Future of American Foreign Policy,” address delivered at City University of New York College of Staten Island, December 2004

“One Culprit for the 9/11 Attacks: Political Realism,” address delivered at City University of New York-College of Staten Island, September 2004

“Were the Eagle and the Phoenix Birds of a Feather? The United States and the 1967 Greek Coup,” address delivered at London School of Economics, November 2003

“Beware of Europeans Bearing Gifts? Cypriot Accession to the EU and the Prospects for Peace,” address delivered at Conference on Mediterranean Stability, Security, and Cooperation, Austrian Defense Ministry, Vienna, Austria, October 2003

Co-Chair, Panel on Ideational and Strategic Aspects of Greek International Relations, London School of Economics Symposium on Modern Greece, London, June 2003

“Greece between Old and New Europe,” address delivered at London School of Economics, June 2003

Co-Chair, Panel on International Regimes and Genocide, International Association of Genocide Scholars Annual Meeting, Galway, Ireland, June 2003

“American Cooperation with International Tribunals,” paper presented at the International Association of Genocide Scholars Annual Meeting, Galway, Ireland, June 2003

“Is the Unipolar Moment Fading?” address delivered at London School of Economics, May 2003

“Cyprus, Turkey, and the European Union,” address delivered at London School of Economics, February 2003

“Bridging the Greek-Turkish Divide,” address delivered at Northwestern University, May 1998

“The CNN Effect: Fact or Fiction?” address delivered at Catholic University, April 1998

“The Current Political Situation in Cyprus,” address delivered at AMIDEAST, July 1997

“Making the Peace Happen in Cyprus,” presentation delivered at the U.S. Institute of Peace in July 1997

“The CNN Effect: The Impact of the Media during Diplomatic Crises and Complex Emergencies,” a series of presentations delivered in Cyprus (including at Ledra Palace), May 1997

“Are Policy-Makers Misreading the Public? American Public Opinion on the United Nations,” paper presented at the International Studies Association Annual Meeting, Toronto, Canada, March 1997 (with Shoon Murray)

“The Political and Diplomatic Consequences of Greece’s Recent National Elections,” presentation delivered at the National Foreign Affairs Training Center, Arlington, VA, September 1996

“Prospects for Greek-Turkish Reconciliation,” presentation delivered at the U.S. Institute of Peace Conference on Greek-Turkish Relations, Washington, D.C., June, 1996 (with Theodore A. Couloubis)

“Greek-Turkish Reconciliation,” paper presented at the Karamanlis Foundation and Fletcher School of Diplomacy Joint Conference on The Greek-U.S. Relationship and the Future of Southeastern Europe, Washington, D.C., May, 1996 (with Theodore A. Couloubis)

“The Path toward Peace in the Eastern Mediterranean and the Balkans in the Post-Cold War Era,” paper presented at the International Studies Association Annual Meeting, San Diego, CA, March, 1996 (with Theodore A. Couloubis)

“Peace Operations: The View from the Public,” paper presented at the International Studies Association Annual Meeting, San Diego, CA, March, 1996

Chairperson, Roundtable on Peace Operations, International Security Section of the International Studies Association Annual Meeting, Rosslyn, VA, October, 1995

“Chaos and Complexity in International Politics: Epistemological Implications,” paper presented at the International Studies Association Annual Meeting, Washington, D.C., March, 1994

“At What Cost? American Mass Public Opinion and the Use of Force Abroad,” paper presented at the International Studies Association Annual Meeting, Washington, D.C., March, 1994 (with Daniel B. O'Connor)

“American Mass Public Opinion and the Use of Force Abroad,” presentation delivered at the United States Institute of Peace, Washington, D.C., February, 1994 (with Daniel B. O'Connor)

“For a Good Cause: American Mass Public Opinion and the Use of Force Abroad,” paper presented at the Annual Meeting of the Foreign Policy Analysis/Midwest Section of the International Studies Association, Chicago, IL, October, 1993 (with Daniel B. O’Connor)

“American International Narcotics Control Policy: A Critical Evaluation,” presentation delivered at the American University Drug Policy Forum, Washington, D.C., November, 1991

“American National Security in the Post-Cold War Era: Social Defense, the War on Drugs, and the Department of Justice,” paper presented at the Association of Professional Schools of International Affairs Conference, Denver, CO, February, 1991

Referee for Grant Organizations, Peer-Reviewed Journals, and Book Publishers

National Science Foundation, Division of Social and Economic Sciences

American Journal of Preventive Medicine

American Journal of Public Health

American Political Science Review

British Medical Journal (BMJ)

Comparative Political Studies

Injury Epidemiology

Journal of Public and International Affairs

Millennium

Political Behavior

Presidential Studies Quarterly

Victims & Offenders

Violence and Victims

Brill Publishers

Johns Hopkins University Press

Routledge

Service to University, Profession, and Community

Participant, Minnesota Chiefs of Police Association, Survey of Measures to Reduce Gun Violence, 2023

Member, Regional Gun Violence Research Consortium, Nelson A. Rockefeller Institute of Government, State University of New York, 2022-

Founding Member, Scientific Union for the Reduction of Gun Violence (SURGE), Columbia University, 2019-

Contributing Lecturer, Johns Hopkins University, Massive Open Online Course on Evidence-Based Gun Violence Research, Funded by David and Lucile Packard Foundation, 2019

Member, Group of Gun Violence Experts, *New York Times* Upshot Survey, 2017

Member, Guns on Campus Assessment Group, Johns Hopkins University and Association of American Universities, 2016

Member, Fulbright Selection Committee, Fulbright Foundation, Athens, Greece, 2012

Faculty Advisor, Global Affairs Graduate Society, New York University, 2009-2011

Founder and Coordinator, Graduate Transnational Security Studies, Center for Global Affairs, New York University, 2009-2011

Organizer, Annual Faculty Symposium, Center for Global Affairs, New York University, 2009

Member, Faculty Search Committees, Center for Global Affairs, New York University, 2007-2009

Member, Graduate Program Director Search Committee, Center for Global Affairs, New York University, 2008-2009

Developer, Transnational Security Studies, Center for Global Affairs, New York University, 2007-2009

Participant, Council on Foreign Relations Special Series on National Intelligence, New York, 2008

Member, Graduate Certificate Curriculum Committee, Center for Global Affairs, New York University, 2008

Member, Faculty Affairs Committee, New York University, 2006-2008

Member, Curriculum Review Committee, Center for Global Affairs, New York University, 2006-2008

Member, Overseas Study Committee, Center for Global Affairs, New York University, 2006-2007

Participant, New York Academic Delegation to Israel, Sponsored by American-Israel Friendship League, 2006

Member, Science, Letters, and Society Curriculum Committee, City University of New York-College of Staten Island, 2006

Member, Graduate Studies Committee, City University of New York-College of Staten Island, 2005-2006

Member, Summer Research Grant Selection Committee, City University of New York-College of Staten Island, 2005

Director, College of Staten Island Association, 2004-2005

Member of Investment Committee, College of Staten Island Association, 2004-2005

Member of Insurance Committee, College of Staten Island Association, 2004-2005

Member, International Studies Advisory Committee, City University of New York-College of Staten Island, 2004-2006

Faculty Advisor, Pi Sigma Alpha National Political Science Honor Society, City University of New York-College of Staten Island, 2004-2006

Participant, World on Wednesday Seminar Series, City University of New York-College of Staten Island, 2004-2005

Participant, American Democracy Project, City University of New York-College of Staten Island, 2004

Participant, Philosophy Forum, City University of New York-College of Staten Island, 2004

Commencement Liaison, City University of New York-College of Staten Island, 2004

Member of Scholarship Committee, Foundation of Pan-Icarian Brotherhood, 2003-2005, 2009

Scholarship Chairman, Foundation of Pan-Icarian Brotherhood, 2001-2003

Faculty Advisor to the Kosmos Hellenic Society, George Washington University, 2001-2002

Member of University of Pennsylvania's Alumni Application Screening Committee, 2000-2002

Participant in U.S. Department of State's International Speakers Program, 1997

Participant in Yale University's United Nations Project, 1996-1997

Member of Editorial Advisory Board, *Journal of Public and International Affairs*, Woodrow Wilson School of Public and International Affairs, Princeton University, 1991-1993

Voting Graduate Student Member, School of International Service Rank and Tenure Committee, American University, 1990-1992

Member of School of International Service Graduate Student Council, American University, 1990-1992

Teaching Assistant for the Several Courses (World Politics, Beyond Sovereignty, Between Peace and War, Soviet-American Security Relations, and Organizational Theory) at School of International Service Graduate Student Council, American University, 1989-1992

Representative for American University at the Annual Meeting of the Association of Professional Schools of International Affairs, Denver, Colorado, 1991

Expert Witness Service

Town of Superior, Colorado, 2023-

City of Boulder, Colorado, 2023-

City of Louisville, Colorado, 2023-

County of Boulder, Colorado, 2023-

State of Connecticut, 2023-

State of Hawaii, 2023-

State of Illinois, 2023-

State of Massachusetts, 2023-

State of New Jersey, 2023-

State of Oregon, 2023-

City of Highland Park, Illinois, 2022-

County of Cook, Illinois, 2022-

State of Washington, 2022-

Government of Canada, 2021-2022

Plaintiffs, *Ward et al. v. Academy Sports + Outdoor*, District Court Bexar County, Texas, 224th Judicial District, Cause Number 2017CI23341, Bexar County, TX, 2019

State of California, 2017-

State of Colorado, 2016-2017, 2022-

Affiliations, Associations, and Organizations (Past and Present)

Academy of Political Science (APS)

American Political Science Association (APSA)

Anderson Society of American University

Carnegie Council Global Ethics Network

Columbia University Scientific Union for the Reduction of Gun Violence (SURGE)

Firearm Safety among Children and Teens (FACTS)

International Political Science Association (IPSA)

International Studies Association (ISA)

New York Screenwriters Collective

Pan-Icarian Brotherhood

Pi Sigma Alpha

Regional Gun Violence Research Consortium

Society for Advancement of Violence and Injury Research (SAVIR)

United States Department of State Alumni Network

United States Institute of Peace Alumni Association

University of Pennsylvania Alumni Association

Grants, Honors, and Awards

Co-Investigator, A Nationwide Case-Control Study of Firearm Violence Prevention Tactics and Policies in K-12 School, National Institutes of Health, 2021-2024 (Branas and Rajan MPIs)

Senior Fulbright Fellowship, 2012

Professional Staff Congress Research Grantee, City University of New York, 2004-2005

Research Assistance Award (Two Times), City University of New York-College of Staten Island, 2004

Summer Research Fellowship, City University of New York-College of Staten Island, 2004

European Institute Associate Fellowship, London School of Economics, 2003-2004

Hellenic Observatory Defense Analysis Research Fellowship, London School of Economics, 2002-2003

United States Institute of Peace Certificate of Meritorious Service, 1996

National Science Foundation Dissertation Research Grant, 1995 (declined)

Alexander George Award for Best Graduate Student Paper, Runner-Up, Foreign Policy Analysis Section, International Studies Association, 1994

Dean's Scholar Fellowship, School of International Service, American University, 1989-1992

Graduate Research and Teaching Assistantship, School of International Service, American University, 1989-1992

American Hellenic Educational Progressive Association (AHEPA) College Scholarship, 1986

Political Science Student of the Year, Wilkes-Barre Area School District, 1986

EXHIBIT B

LOUIS KLAREVAS
RAMPAGE NATION
SECURING AMERICA FROM MASS SHOOTINGS

 **Prometheus Books**
59 John Glenn Drive
Amherst, New York 14228

48 PART 1: PROBLEM

Table 2.1. The Concept of a Mass Shooting.

Definition of a Mass Shooting:

Any violent attack that results in four or more individuals incurring gunshot wounds.

Categories of Mass Shooting:

1. *Nonfatal*
Mass shootings in which no one dies.
2. *Fatal*
Mass shootings in which at least one victim dies.
3. *High-Fatality / Gun Massacre*
Mass shootings in which six or more victims die.

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It's easy to dismiss conceptual discussions and debates as exercises in Ivory Tower intellectualism. But how we identify and think about mass shootings impacts which attacks capture national attention and which are disregarded—something which has far-reaching policy consequences. Thus, coming up with the best possible definition and conceptualization is a vital first step toward explaining and preventing rampage violence. As the Socratic adage reminds us, “The beginning of wisdom is the definition of terms.”⁴³

EXHIBIT C

Exhibit C
High-Fatality Mass Shootings in the United States, 1991-2022

	Date	City	State	Deaths	Involved AWs	Involved LCMs
1	1/26/1991	Chimayo	NM	7	N	N
2	8/9/1991	Waddell	AZ	9	N	N
3	10/16/1991	Killeen	TX	23	N	Y
4	11/7/1992	Morro Bay and Paso Robles	CA	6	N	N
5	1/8/1993	Palatine	IL	7	N	N
6	5/16/1993	Fresno	CA	7	Y	Y
7	7/1/1993	San Francisco	CA	8	Y	Y
8	12/7/1993	Garden City	NY	6	N	Y
9	4/20/1999	Littleton	CO	13	Y	Y
10	7/12/1999	Atlanta	GA	6	N	U
11	7/29/1999	Atlanta	GA	9	N	Y
12	9/15/1999	Fort Worth	TX	7	N	Y
13	11/2/1999	Honolulu	HI	7	N	Y
14	12/26/2000	Wakefield	MA	7	Y	Y
15	12/28/2000	Philadelphia	PA	7	N	Y
16	8/26/2002	Rutledge	AL	6	N	N
17	1/15/2003	Edinburg	TX	6	Y	U
18	7/8/2003	Meridian	MS	6	N	N
19	8/27/2003	Chicago	IL	6	N	N
20	3/12/2004	Fresno	CA	9	N	N
21	11/21/2004	Birchwood	WI	6	Y	Y
22	3/12/2005	Brookfield	WI	7	N	Y
23	3/21/2005	Red Lake	MN	9	N	Y
24	1/30/2006	Goleta	CA	7	N	Y
25	3/25/2006	Seattle	WA	6	N	N
26	6/1/2006	Indianapolis	IN	7	Y	Y
27	12/16/2006	Kansas City	KS	6	N	N
28	4/16/2007	Blacksburg	VA	32	N	Y
29	10/7/2007	Crandon	WI	6	Y	Y
30	12/5/2007	Omaha	NE	8	Y	Y
31	12/24/2007	Carnation	WA	6	N	U
32	2/7/2008	Kirkwood	MO	6	N	Y
33	9/2/2008	Alger	WA	6	N	U
34	12/24/2008	Covina	CA	8	N	Y
35	1/27/2009	Los Angeles	CA	6	N	N
36	3/10/2009	Kinston, Samson, and Geneva	AL	10	Y	Y
37	3/29/2009	Carthage	NC	8	N	N
38	4/3/2009	Binghamton	NY	13	N	Y

	Date	City	State	Deaths	Involved AWs	Involved LCMs
39	11/5/2009	Fort Hood	TX	13	N	Y
40	1/19/2010	Appomattox	VA	8	Y	Y
41	8/3/2010	Manchester	CT	8	N	Y
42	1/8/2011	Tucson	AZ	6	N	Y
43	7/7/2011	Grand Rapids	MI	7	N	Y
44	8/7/2011	Copley Township	OH	7	N	N
45	10/12/2011	Seal Beach	CA	8	N	N
46	12/25/2011	Grapevine	TX	6	N	N
47	4/2/2012	Oakland	CA	7	N	N
48	7/20/2012	Aurora	CO	12	Y	Y
49	8/5/2012	Oak Creek	WI	6	N	Y
50	9/27/2012	Minneapolis	MN	6	N	Y
51	12/14/2012	Newtown	CT	27	Y	Y
52	7/26/2013	Hialeah	FL	6	N	Y
53	9/16/2013	Washington	DC	12	N	N
54	7/9/2014	Spring	TX	6	N	Y
55	9/18/2014	Bell	FL	7	N	U
56	2/26/2015	Tyrone	MO	7	N	U
57	5/17/2015	Waco	TX	9	N	Y
58	6/17/2015	Charleston	SC	9	N	Y
59	8/8/2015	Houston	TX	8	N	U
60	10/1/2015	Roseburg	OR	9	N	Y
61	12/2/2015	San Bernardino	CA	14	Y	Y
62	2/21/2016	Kalamazoo	MI	6	N	Y
63	4/22/2016	Piketon	OH	8	N	U
64	6/12/2016	Orlando	FL	49	Y	Y
65	5/27/2017	Brookhaven	MS	8	Y	Y
66	9/10/2017	Plano	TX	8	Y	Y
67	10/1/2017	Las Vegas	NV	60	Y	Y
68	11/5/2017	Sutherland Springs	TX	25	Y	Y
69	2/14/2018	Parkland	FL	17	Y	Y
70	5/18/2018	Santa Fe	TX	10	N	N
71	10/27/2018	Pittsburgh	PA	11	Y	Y
72	11/7/2018	Thousand Oaks	CA	12	N	Y
73	5/31/2019	Virginia Beach	VA	12	N	Y
74	8/3/2019	El Paso	TX	23	Y	Y
75	8/4/2019	Dayton	OH	9	Y	Y
76	8/31/2019	Midland and Odessa	TX	7	Y	Y
77	3/15/2020	Moncure	NC	6	U	U
78	6/4/2020	Valhermoso Springs	AL	7	Y	Y
79	9/7/2020	Aguanga	CA	7	U	U

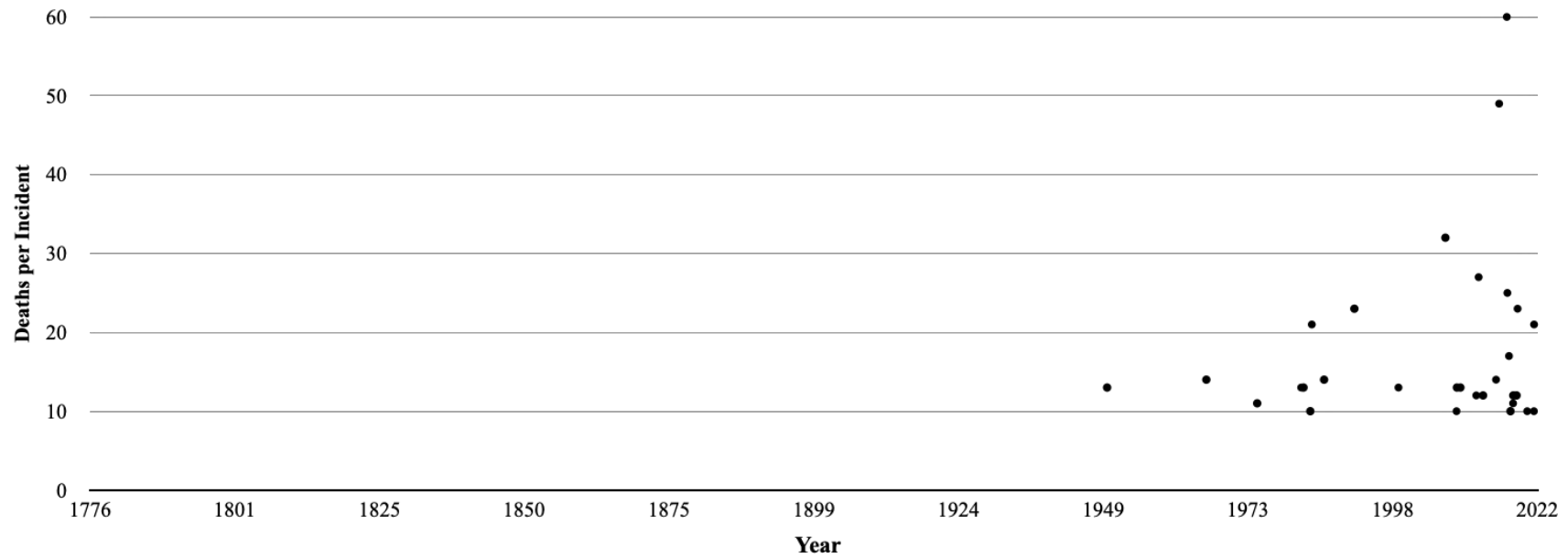
	Date	City	State	Deaths	Involved AWs	Involved LCMs
80	2/2/2021	Muskogee	OK	6	N	U
81	3/16/2021	Acworth and Atlanta	GA	8	N	Y
82	3/22/2021	Boulder	CO	10	Y	Y
83	4/7/2021	Rock Hill	SC	6	Y	Y
84	4/15/2021	Indianapolis	IN	8	Y	Y
85	5/9/2021	Colorado Springs	CO	6	N	Y
86	5/26/2021	San Jose	CA	9	N	Y
87	1/23/2022	Milwaukee	WI	6	N	U
88	4/3/2022	Sacramento	CA	6	N	Y
89	5/14/2022	Buffalo	NY	10	Y	Y
90	5/24/2022	Uvalde	TX	21	Y	Y
91	7/4/2022	Highland Park	IL	7	Y	Y
92	10/27/2022	Broken Arrow	OK	7	N	U
93	11/22/2022	Chesapeake	VA	6	N	U

Note: High-fatality mass shootings are mass shootings resulting in 6 or more fatalities, not including the perpetrator(s), regardless of location or motive. For purposes of this Exhibit, a high-fatality mass shooting was coded as involving an assault weapon if at least one of the firearms discharged was defined as an assault weapon in (1) the 1994 federal Assault Weapons Ban or (2) the statutes of the state where the shooting occurred. For purposes of this Exhibit, a high-fatality mass shooting was coded as involving a large-capacity magazine if at least one of the firearms discharged had an ammunition-feeding device with a capacity of more than 10 bullets. Incidents in gray shade are those incidents that occurred at a time when and in a state where legal prohibitions on both assault weapons and large-capacity magazines were in effect statewide or nationwide.

Sources: Louis Klarevas, *Rampage Nation: Securing America from Mass Shootings* (2016); Louis Klarevas, et al., *The Effect of Large-Capacity Magazine Bans on High-Fatality Mass Shootings*, 109 American Journal of Public Health 1754 (2019), available at <https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2019.305311> (last accessed December 27, 2022); and “Gun Violence Archive,” available at <https://www.gunviolencearchive.org> (last accessed January 3, 2023). The Gun Violence Archive was only consulted for identifying high-fatality mass shootings that occurred since January 1, 2018.

EXHIBIT D

Mass Shootings Resulting in Double-Digit Fatalities in American History (1776-2022)



Mass Shootings Resulting in Double-Digit Fatalities in American History (1949-2022)

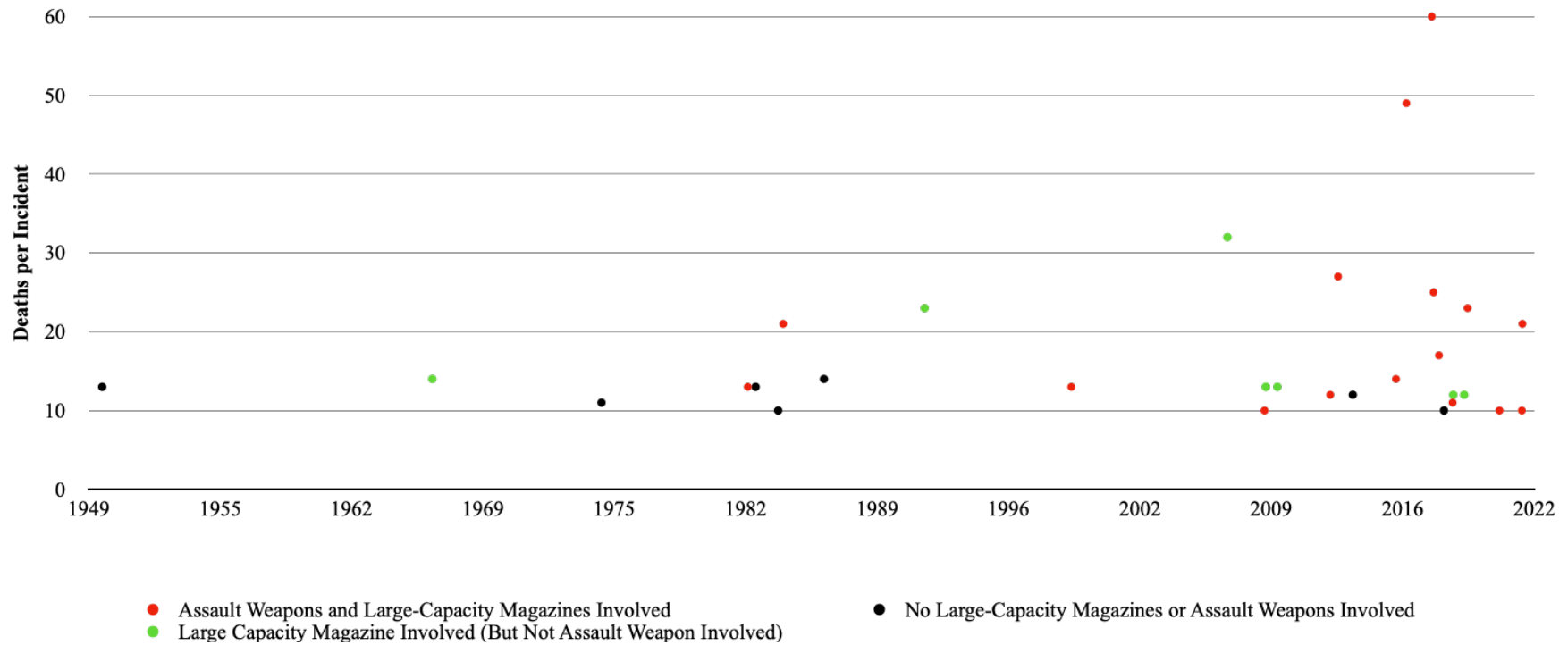


EXHIBIT E

LOUIS KLAREVAS
RAMPAGE NATION
SECURING AMERICA FROM MASS SHOOTINGS

 **Prometheus Books**
59 John Glenn Drive
Amherst, New York 14228

in a class all by itself. No other advanced, Western democracy experiences the magnitude of gun violence that presently afflicts American society.²⁸ This is particularly true when it comes to mass shootings.²⁹

★ ★ ★

The United States does little to regulate firearms, especially at the federal level.³⁰ While it goes to great lengths to restrict access to WMDs and IEDs, the same can't be said for its efforts to keep firearms out of the hands of high-risk individuals. Indeed, the American experience with gun control nationwide is so limited that it can actually be chronicled in a few bullet points:

- The National Firearms Act of 1934: Heavily regulated machine guns, short-barrel rifles and shotguns, and silencers.
- The Federal Firearms Act of 1938: Established a federal licensing system to regulate manufacturers, importers, and dealers of firearms.
- The Omnibus Crime Control and Safe Streets Act of 1968: Prohibited anyone under twenty-one years of age from purchasing a handgun.
- The Gun Control Act of 1968: Required that all interstate firearms transfers or sales be made through a federally licensed firearms dealer and prohibited certain categories of people—felons (indicted or convicted), fugitives, drug abusers, mentally ill persons (as determined by adjudication), illegal aliens, dishonorably discharged servicemen, US-citizenship renouncers, and domestic abusers—from possessing firearms.³¹
- The Firearm Owners Protection Act of 1986: Barred the purchase or transfer of automatic weapons without government approval.
- The Undetectable Firearms Act of 1988: Required that all firearms have at least 3.7 oz. of metal that can be detected by a metal detector.
- The Gun-Free School Zones Act of 1990: Criminalized possession or discharge of a firearm in a school zone.
- The Brady Handgun Violence Prevention Act of 1993: Required

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that anyone attempting to purchase a firearm from a federally licensed dealer pass a background check.³²

- The Federal Assault Weapons Ban of 1994: Banned the sale and possession of semiautomatic assault weapons and extended-capacity magazines not grandfathered prior to the enactment of the law.³³

Of all of these measures, the National Firearms Act of 1934 and the Assault Weapons Ban of 1994 (AWB) were the only ones instituted primarily in an effort to reduce the carnage of mass shootings. The former was passed in response to a series of bloody gangland executions, including the infamous 1929 St. Valentine's Day massacre in Chicago.³⁴ While there are still machine guns in circulation, the National Firearm Act, in conjunction with the Firearm Owners Protection Act of 1986, sharply cut the availability of machine guns, which likely explains the complete elimination of massacres perpetrated with such automatic-fire weapons.

Like the National Firearms Act, the AWB was introduced following several high-profile mass shootings in the early 1990s: the Luby's restaurant, 101 California Street office complex, and Long Island Railroad train car massacres.³⁵ Signed into law by President Bill Clinton, the AWB went into effect on September 13, 1994. At the insistence of the gun-rights lobby, however, the bill contained a ten-year sunset provision. As Congress never renewed the ban, it automatically expired on September 13, 2004.

The decade the law was in effect nonetheless resulted in a unique experiment, allowing us to discern what impact, if any, the ban had on gun violence in general and mass shootings in particular. As to the former, the academic consensus seems to be that the AWB had a minimal impact on reducing violent crime.³⁶ This hardly comes as a surprise. After all, most crimes don't involve assault weapons. The real test should be: Did it succeed in its intended purpose of reducing rampage violence? The answer is a resounding yes.

Let's take a closer look.

The best way to assess the impact of something is to conduct what, in social science, we commonly refer to as a time-series analysis. Basically, that's a fancy name for a before-and-after test. Figures 7.1

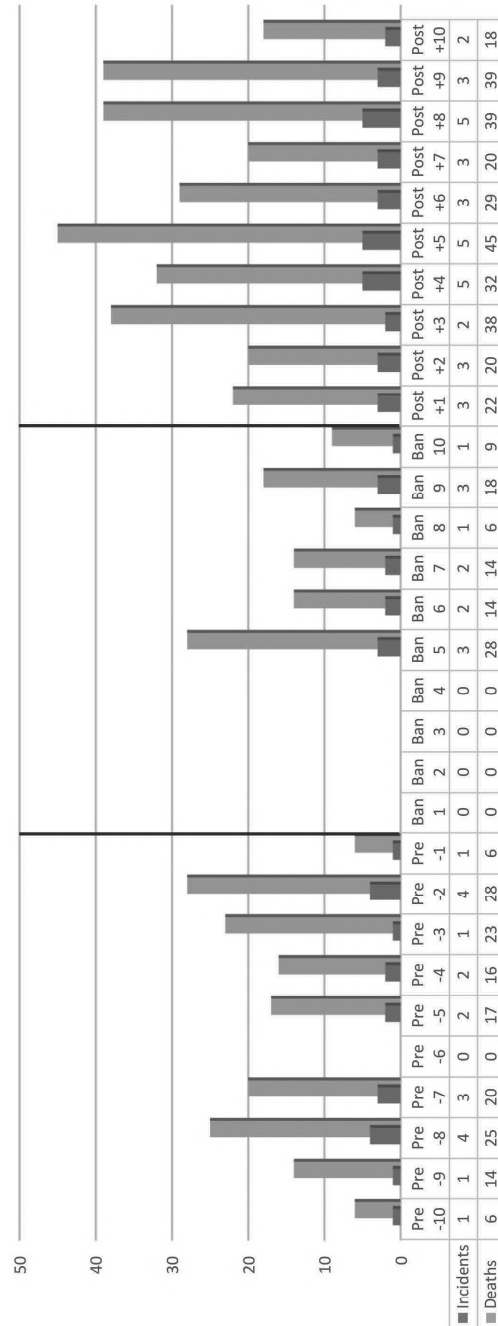


Fig. 7.1. Gun Massacres Before, During, and After the Assault Weapons Ban of 1994.

Note: The lines in the graph demarcate the start and end points of the Assault Weapons Ban, which was in effect from September 13, 1994, through September 12, 2004. The data are drawn from Table 3.2.

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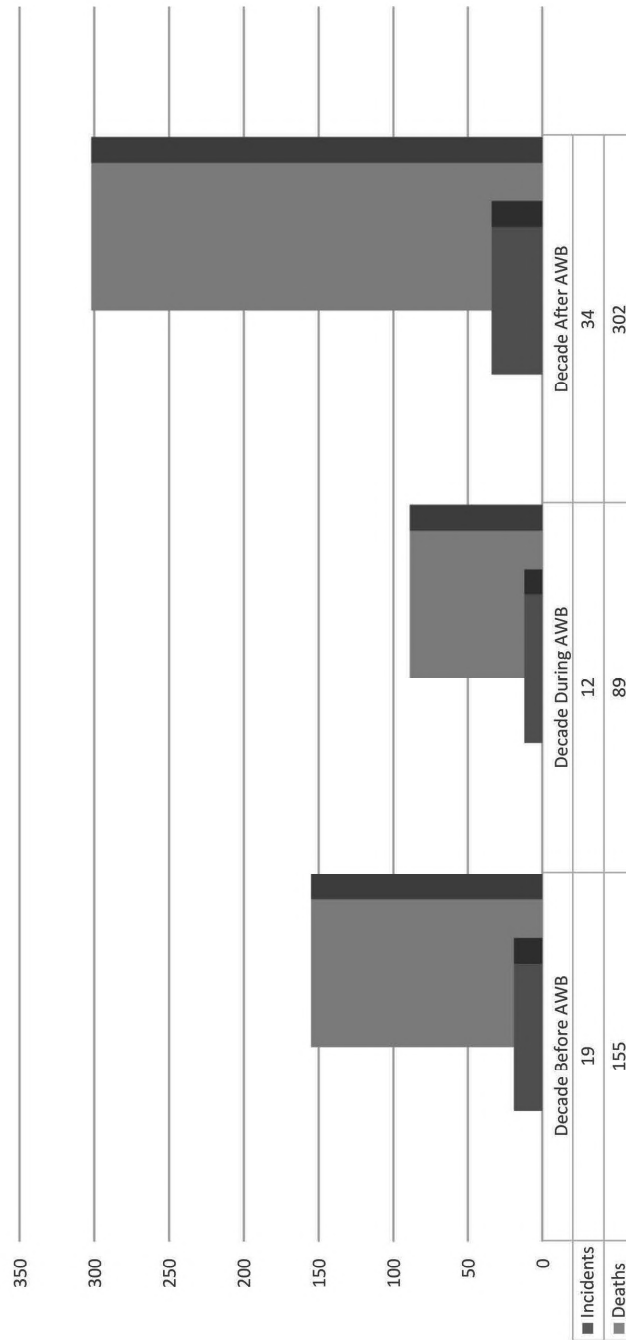


Fig. 7.2. Gun Massacres by Decade Before, During, and After the Assault Weapons Ban of 1994.
Note: The Assault Weapons Ban was in effect from September 13, 1994, through September 12, 2004.
The data are drawn from Table 3.2.

and 7.2 provide a look at the before-and-after pictures. In the decade prior to the enactment of the AWB, the United States experienced nineteen gun massacres that resulted in 155 cumulative deaths, for an average death toll of 8.2 fatalities per incident. During the ten-year period that the AWB was in effect, the numbers declined substantially, with only twelve gun massacres, resulting in eighty-nine deaths, for an average of 7.4 fatalities per incident.³⁷ What's particularly astounding about this time period is that during the first four and a half years of the ban, there wasn't a single gun massacre in the United States. Not one. This is unprecedented in modern American history.³⁸ Since 1966, the longest streaks without a gun massacre prior to era of the AWB were two instances of consecutive years (1969–1970 and 1979–1980).³⁹ Then, all of a sudden, from September 1994 to April 1999, the country experienced a long calm. As further evidence of the AWB's effectiveness, once it expired, rampages returned with a vengeance. In the ten years after the ban, the number of gun massacres nearly tripled to thirty-four incidents, sending the total number of deaths skyrocketing to 302, for an average of 8.9 fatalities per incident.⁴⁰ These numbers paint a clear picture: America's experiment, while short-lived, was also extremely successful.⁴¹

ZEROING OUT GUN MASSACRES

The biggest takeaway from America's experience with a ban on assault weapons and extended-capacity magazines is that gun-control legislation can save lives. But is there a way to get to zero? Is there a way to eliminate gun massacres once and for all? For that, we have to look overseas for insights.

One of the biggest obstacles to successful gun control is the ability to transport firearms across open, contiguous borders. In the United States, it's a problem that allows guns to flow freely from states with lax laws into states with strict laws. A common complaint frequently leveled by elected officials in places like California, Illinois, Maryland, New York, and Massachusetts is that people just need to drive across a state line and they can readily obtain firearms that they can then easily—if perhaps illegally—bring back into their jurisdictions.⁴² That

EXHIBIT F

The Effect of Large-Capacity Magazine Bans on High-Fatality Mass Shootings, 1990–2017

Louis Klarevas, PhD, Andrew Conner, BS, David Hemenway, PhD

Objectives. To evaluate the effect of large-capacity magazine (LCM) bans on the frequency and lethality of high-fatality mass shootings in the United States.

Methods. We analyzed state panel data of high-fatality mass shootings from 1990 to 2017. We first assessed the relationship between LCM bans overall, and then federal and state bans separately, on (1) the occurrence of high-fatality mass shootings (logit regression) and (2) the deaths resulting from such incidents (negative binomial analysis). We controlled for 10 independent variables, used state fixed effects with a continuous variable for year, and accounted for clustering.

Results. Between 1990 and 2017, there were 69 high-fatality mass shootings. Attacks involving LCMs resulted in a 62% higher mean average death toll. The incidence of high-fatality mass shootings in non-LCM ban states was more than double the rate in LCM ban states; the annual number of deaths was more than 3 times higher. In multivariate analyses, states without an LCM ban experienced significantly more high-fatality mass shootings and a higher death rate from such incidents.

Conclusions. LCM bans appear to reduce both the incidence of, and number of people killed in, high-fatality mass shootings. (*Am J Public Health.* 2019;109:1754–1761. doi: 10.2105/AJPH.2019.305311)

The recent spate of gun massacres in the United States has re-energized the debate over how to prevent such tragedies.¹ A common response to high-profile acts of gun violence is the promotion of tighter gun legislation, and there is some evidence that laws imposing tighter restrictions on access to firearms have been associated with lower levels of mass shootings.² One proposal that has received renewed interest involves restricting the possession of large-capacity magazines (LCMs).^{3–5} This raises an important question: what has been the impact of LCM bans on high-fatality mass shootings?

In an attempt to arrest an uptick in mass shooting violence in the early 1990s, Congress in 1994 enacted the federal assault weapons ban, which, among other things, restricted ownership of certain ammunition-feeding devices.^{6,7} The law, which contained a sunset provision, was allowed to expire a decade later. Pursuant to that ban (18 USC §921(a) [1994]; repealed), it was illegal to possess LCMs—defined as any

ammunition-feeding device holding more than 10 bullets—unless the magazines were manufactured before the enactment of the ban. LCM restrictions are arguably the most important component of assault weapons bans because they also apply to semiautomatic firearms without military-style features.^{8,9}

Beginning with New Jersey in 1990, some states implemented their own regulations on LCMs. Today, 9 states and the District of Columbia restrict the possession of LCMs. The bans vary along many dimensions, including maximum bullet capacity of permissible magazines, grandfathering of existing LCMs, and applicable firearms. Moreover, overlaps sometimes exist between assault weapons bans and LCM bans, but not in all states. For example, California instituted a ban

on assault weapons in 1989, but LCMs remained unregulated in the state until 1994, when the federal ban went into effect. In 2000, California's own statewide ban on LCMs took effect as a safeguard in the event the federal ban expired, which happened in 2004.^{10,11}

LCMs provide a distinct advantage to active shooters intent on murdering numerous people: they increase the number of rounds that can be fired at potential victims before having to pause to reload or switch weapons. Evidence shows that victims struck by multiple rounds are more likely to die, with 2 studies finding that, when compared with the fatality rates of gunshot wound victims who were hit by only a single bullet, the fatality rates of those victims hit by more than 1 bullet were more than 60% higher.^{12,13} Being able to strike human targets with more than 1 bullet increases shooters' chances of killing their victims. Analyses of gunshot wound victims at level I trauma centers have suggested that this multiple-impact capability is often attributable to the use of LCMs.^{14,15}

In addition, LCMs provide active shooters with extended cover.¹⁶ During an attack, perpetrators are either firing their guns or not firing their guns. While gunmen are firing, it is extremely difficult for those in the line of fire to take successful defensive maneuvers. But if gunmen run out of bullets, there are lulls in the shootings, as the perpetrators are forced to pause their attacks to reload or change weapons. These pauses provide opportunities for people to intervene and disrupt a shooting. Alternatively, they provide individuals in

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harm's way with a chance to flee or hide. Legislative endeavors that restrict access to LCMs are implemented with the express objective of reducing an active shooter's multiple-impact capability and extended cover.¹⁰

Although mass shootings have received extensive study, there has been little scholarly analysis of LCM bans.^{17–24} The studies undertaken that have broached the subject of ammunition capacity have primarily concentrated on the effect of LCM bans on violent crimes other than mass shootings or on the impact of the assault weapons bans on mass shootings.^{25–27}

Evidence suggests that firearms equipped with LCMs are involved in a disproportionate share of mass shootings.^{10,20,28} Proponents of LCM bans believe that without LCMs, fewer people will be killed in a mass shooting, other things equal. In turn, fewer shootings will cross the threshold required to be classified as what we call a “high-fatality mass shooting” (≥ 6 victims shot to death). If LCM bans are effective, we should expect to find that high-fatality mass shootings occur at a lower incidence rate when LCM bans are in place, and fewer people are killed in such attacks. But have LCM bans actually saved lives in practice? To our knowledge, the impact of LCM bans has never been systematically assessed. This study fills that void.

METHODS

Mass shootings have been defined in a variety of ways, with some analyses setting the casualty threshold as low as 2 people wounded or killed and others requiring a minimum of 7 gunshot victims.^{18,22,29} We focused on high-fatality mass shootings—the deadliest and most disturbing of such incidents—which are defined as intentional crimes of gun violence with 6 or more victims shot to death, not including the perpetrators.^{20,30,31} After an exhaustive search, we identified 69 such incidents in the United States between 1990 and 2017. We then discerned whether each high-fatality mass shooting involved a LCM—unless otherwise stated, defined consistent with the 1994 federal ban as a detachable ammunition-feeding device capable of holding more than 10 bullets. (See Table 1 for a list of incidents and for additional details on

the search and identification strategy we employed.)

The first state to enact an LCM ban was New Jersey in 1990. Since then, another 8 states and the District of Columbia have enacted LCM bans (Table A, available as a supplement to the online version of this article at <http://www.ajph.org>).¹⁰ With no LCM bans in effect before 1990, a priori we chose that year to begin our analysis to avoid inflating the impact of the bans. Our data set extends 28 years, from 1990 through 2017. As a secondary analysis, we used a 13-year data set, beginning in 2005, the first full year after the federal assault weapons ban expired.

Our primary outcome measures were the incidence of high-fatality mass shootings and the number of victims killed. We distinguished between high-fatality mass shootings occurring with and without a ban in effect. Because the federal ban was in effect nationwide from September 13, 1994, through September 12, 2004, we coded every state as being under an LCM ban during that 10-year timeframe.

Our interest was in the effect of LCM bans. We ran regression analyses to determine if any relationship between LCM bans and high-fatality mass shootings can be explained by other factors. In our state-year panel multivariate analyses, the outcome variables were (1) whether an LCM-involved high-fatality mass shooting occurred, (2) whether any high-fatality mass shooting occurred, (3) the number of fatalities in an LCM-involved high-fatality mass shooting, and (4) the number of fatalities in any high-fatality mass shooting. Our analyses first combined and then separated federal and state LCM bans.

Consistent with the suggestions and practices of the literature on firearm homicides and mass shootings, our explanatory variables are population density; proportion of population aged 19 to 24 years, aged 25 to 34 years, that is Black, and with a college degree; real per-capita median income; unemployment rate; and per-capita prison population.^{2,26,27,32} We also added a variable for percentage of households with a firearm. All regression models controlled for total state population. When the dependent variable reflected occurrences of incidents (ordered choice data), we used logit regression; we ran probit regression as a sensitivity analysis. We had multiple observations for individual

states. To control for this, we utilized cluster-robust standard errors to account for the clustering of observations. When the dependent variable reflected deaths (count data), we used negative binomial regression; Gius used a Poisson regression, and we used that approach as a sensitivity analysis.²⁶ We included state fixed effects. We used a continuous variable for year because the rate of high-fatality mass shootings has increased over time. For purposes of sensitivity analysis, we also replaced the linear yearly trend with a quadratic function. We performed multivariate statistical analyses by using Stata/IC version 15.1 (StataCorp LP, College Station, TX).

Population data came from the US Census Bureau, unemployment data came from the Bureau of Labor Statistics, and imprisonment data came from the Bureau of Justice Statistics. The percentage of households with a firearm was a validated proxy (the percentage of suicides that are firearm suicides) derived from Centers for Disease Control and Prevention National Vital Statistics Data.³³

RESULTS

Between 1990 and 2017, there were 69 high-fatality mass shootings (≥ 6 victims shot to death) in the United States. Of these, 44 (64%) involved LCMs, 16 did not (23%), and for 9 (13%) we could not determine whether LCMs were used (Table 1). The mean number of victims killed in the 44 LCM-involved high-fatality mass shootings was 11.8; including the unknowns resulted in that average falling to 11.0 (not shown). The mean number of victims killed in high-fatality mass shootings in which the perpetrator did not use an LCM was 7.3 (Table B, available as a supplement to the online version of this article at <http://www.ajph.org>); including the unknowns resulted in that average falling to 7.1 (not shown). When we excluded unknown cases, the data indicated that utilizing LCMs in high-fatality mass shootings resulted in a 62% increase in the mean death toll.

Data sets of mass shooting fatalities by their nature involve truncated data, with the mode generally being the baseline number of fatalities required to be included in the data set (6 fatalities in the current study). Our data

TABLE 1—High-Fatality Mass Shootings in the United States, 1990–2017

Incident	Date	City	State	LCM	Deaths, No.	State LCM Ban	Federal Assault Weapons Ban
1	Jun 18, 1990	Jacksonville	FL	Y	9	N	N
2	Jan 26, 1991	Chimayo	NM	N	7	N	N
3	Aug 9, 1991	Waddell	AZ	N	9	N	N
4	Oct 16, 1991	Killeen	TX	Y	23	N	N
5	Nov 7, 1992	Morro Bay and Paso Robles	CA	N	6	N	N
6	Jan 8, 1993	Palatine	IL	N	7	N	N
7	May 16, 1993	Fresno	CA	Y	7	N	N
8	Jul 1, 1993	San Francisco	CA	Y	8	N	N
9	Dec 7, 1993	Garden City	NY	Y	6	N	N
10	Apr 20, 1999	Littleton	CO	Y	13	Y	Y
11	Jul 12, 1999	Atlanta	GA	U	6	Y	Y
12	Jul 29, 1999	Atlanta	GA	Y	9	Y	Y
13	Sep 15, 1999	Fort Worth	TX	Y	7	Y	Y
14	Nov 2, 1999	Honolulu	HI	Y	7	Y	Y
15	Dec 26, 2000	Wakefield	MA	Y	7	Y	Y
16	Dec 28, 2000	Philadelphia	PA	Y	7	Y	Y
17	Aug 26, 2002	Rutledge	AL	N	6	Y	Y
18	Jan 15, 2003	Edinburg	TX	U	6	Y	Y
19	Jul 8, 2003	Meridian	MS	N	6	Y	Y
20	Aug 27, 2003	Chicago	IL	N	6	Y	Y
21	Mar 12, 2004	Fresno	CA	N	9	Y	Y
22	Nov 21, 2004	Birchwood	WI	Y	6	N	N
23	Mar 12, 2005	Brookfield	WI	Y	7	N	N
24	Mar 21, 2005	Red Lake	MN	Y	9	N	N
25	Jan 30, 2006	Goleta	CA	Y	7	Y	N
26	Mar 25, 2006	Seattle	WA	Y	6	N	N
27	Jun 1, 2006	Indianapolis	IN	Y	7	N	N
28	Dec 16, 2006	Kansas City	KS	N	6	N	N
29	Apr 16, 2007	Blacksburg	VA	Y	32	N	N
30	Oct 7, 2007	Crandon	WI	Y	6	N	N
31	Dec 5, 2007	Omaha	NE	Y	8	N	N
32	Dec 24, 2007	Carnation	WA	U	6	N	N
33	Feb 7, 2008	Kirkwood	MO	Y	6	N	N
34	Sep 2, 2008	Alger	WA	U	6	N	N
35	Dec 24, 2008	Covina	CA	Y	8	Y	N
36	Jan 27, 2009	Los Angeles	CA	N	6	Y	N
37	Mar 10, 2009	Kinston, Samson, and Geneva	AL	Y	10	N	N
38	Mar 29, 2009	Carthage	NC	N	8	N	N
39	Apr 3, 2009	Binghamton	NY	Y	13	Y	N
40	Nov 5, 2009	Fort Hood	TX	Y	13	N	N
41	Jan 19, 2010	Appomattox	VA	Y	8	N	N

Continued

TABLE 1—Continued

Incident	Date	City	State	LCM	Deaths, No.	State LCM Ban	Federal Assault Weapons Ban
42	Aug 3, 2010	Manchester	CT	Y	8	N	N
43	Jan 8, 2011	Tucson	AZ	Y	6	N	N
44	Jul 7, 2011	Grand Rapids	MI	Y	7	N	N
45	Aug 7, 2011	Copley Township	OH	N	7	N	N
46	Oct 12, 2011	Seal Beach	CA	N	8	Y	N
47	Dec 25, 2011	Grapevine	TX	N	6	N	N
48	Apr 2, 2012	Oakland	CA	N	7	Y	N
49	Jul 20, 2012	Aurora	CO	Y	12	N	N
50	Aug 5, 2012	Oak Creek	WI	Y	6	N	N
51	Sep 27, 2012	Minneapolis	MN	Y	6	N	N
52	Dec 14, 2012	Newtown	CT	Y	27	N	N
53	Jul 26, 2013	Hialeah	FL	Y	6	N	N
54	Sep 16, 2013	Washington	DC	N	12	Y	N
55	Jul 9, 2014	Spring	TX	Y	6	N	N
56	Sep 18, 2014	Bell	FL	U	7	N	N
57	Feb 26, 2015	Tyrone	MO	U	7	N	N
58	May 17, 2015	Waco	TX	Y	9	N	N
59	Jun 17, 2015	Charleston	SC	Y	9	N	N
60	Aug 8, 2015	Houston	TX	U	8	N	N
61	Oct 1, 2015	Roseburg	OR	Y	9	N	N
62	Dec 2, 2015	San Bernardino	CA	Y	14	Y	N
63	Feb 21, 2016	Kalamazoo	MI	Y	6	N	N
64	Apr 22, 2016	Pikeston	OH	U	8	N	N
65	Jun 12, 2016	Orlando	FL	Y	49	N	N
66	May 27, 2017	Brookhaven	MS	U	8	N	N
67	Sep 10, 2017	Plano	TX	Y	8	N	N
68	Oct 1, 2017	Las Vegas	NV	Y	58	N	N
69	Nov 5, 2017	Sutherland Springs	TX	Y	25	N	N

Note. LCM = large-capacity magazine; N = no; U = unknown; Y = yes. From September 13, 1994, until and including September 12, 2004, each and every state, including the District of Columbia, was subject to a ban on LCMs pursuant to the federal assault weapons ban. To collect the data in Table 1, we searched the following news media resources for every shooting that resulted in 6 or more fatalities: America's Historical Newspapers, EBSCO, Factiva, Gannett Newsstand, Google News Archive, Lexis-Nexis, Newspaper Archive, Newspaper Source Plus, Newspapers.com, Newswires, ProQuest Historical Newspapers, and ProQuest Newsstand. We also reviewed mass shooting data sets maintained by *Mother Jones*, the *New York Times*, and *USA Today*. In addition to news media sources, we reviewed reports on mass shootings produced by think tank, policy advocacy, and governmental organizations, including the US Federal Bureau of Investigation Supplementary Homicide Reports, the crowdsourced Mass Shooting Tracker, and the open-source databases maintained by the Gun Violence Archive and the Stanford University Geospatial Center. Finally, when it was relevant, we also reviewed court records as well as police, forensic, and autopsy reports. As a general rule, when government sources were available, they were preferred over other sources. Furthermore, when media sources conflicted on the number of casualties or the weaponry involved, the later sources were privileged (as later reporting is often more accurate).

set of high-fatality mass shootings was no exception. As such, the median average number of fatalities for each subset of incidents—those involving and those not involving LCMs—was necessarily lower than the mean average. Nevertheless, like the mean average, the median average was higher when LCMs were employed—a median

average of 8 fatalities per incident compared with 7 fatalities per incident for attacks not involving LCMs.

For the 60 incidents in which it was known if an LCM was used, in 44 the perpetrator used an LCM. Of the 44 incidents in which the perpetrators used LCMs, 77% (34/44) were in nonban states. In the 16 incidents in

which the perpetrators did not use LCMs, 50% (8/16) were in nonban states (Table B, available as a supplement to the online version of this article at <http://www.ajph.org>). Stated differently, in nonban states, 81% (34/42) of high-fatality mass shooting perpetrators used LCMs; in LCM-ban states, only 55% (10/18) used LCMs.

The rate of high-fatality mass shootings increased considerably after September 2004 (when the federal assault weapons ban expired). In the 10 years the federal ban was in effect, there were 12 high-fatality mass shootings and 89 deaths (an average of 1.2 incidents and 8.9 deaths per year). Since then, through 2017, there have been 48 high-fatality mass shootings and 527 deaths (an average of 3.6 incidents and 39.6 deaths per year in these 13.3 years).

Of the 69 high-fatality mass shootings from 1990 to 2017, 49 occurred in states without an LCM ban in effect at the time and 20 in states with a ban in effect at the time. The annual incidence rate for high-fatality mass shootings in states without an LCM ban was 11.7 per billion population; the annual incidence rate for high-fatality mass shootings in states with an LCM ban was 5.1 per billion population. In that 28-year period, the rate of high-fatality mass shootings per capita was 2.3 times higher in states without an LCM ban (Table 2).

Non-LCM ban states had not only more incidents but also more deaths per incident (10.9 vs 8.2). The average annual number of high-fatality mass shooting deaths per billion population in the non-LCM ban states was

127.4. In the LCM ban states, it was 41.6 (Table 2).

For the time period beginning with the first full calendar year following the expiration of the federal assault weapons ban (January 1, 2005–December 31, 2017), there were 47 high-fatality mass shootings in the United States. Of these, 39 occurred in states where an LCM ban was not in effect, and 8 occurred in LCM ban locations. The annual incidence rate for high-fatality mass shootings in states without an LCM ban was 13.2 per billion population; for states with an LCM ban, it was 7.4 per billion population (Table 2). During this period, non-LCM ban states had not only more incidents but also more deaths per incident (11.4 vs 9.4). In terms of high-fatality mass shooting deaths per billion population, the annual number of deaths in the non-LCM ban states was 150.6; in the LCM ban states it was 69.2 (Table 2).

When we limited the analysis solely to high-fatality mass shootings that definitely involved LCMs, the differences between ban and nonban states became larger. For example, for the entire period of 1990 to 2017, of the 44 high-fatality mass shootings that involved LCMs, the annual incidence rate for LCM-involved high-fatality mass shootings

in nonban states was 8.1 per billion population; in LCM-ban states it was 2.5 per billion population. The annual rate of high-fatality mass shooting deaths in the non-LCM ban states was 102.1 per billion population; in the LCM ban states it was 23.3. In terms of LCM-involved high-fatality mass shootings, we also found comparable wide differences in incidence and fatality rates between ban and nonban states for the post-federal assault weapons ban period (2005–2017; Table 2).

We found largely similar results in the multivariate analyses (1990–2017). States that did not ban LCMs were significantly more likely to experience LCM-involved high-fatality mass shootings as well as more likely to experience any high-fatality mass shootings (regardless of whether an LCM was involved). States that did not ban LCMs also experienced significantly more deaths from high-fatality mass shootings, operationalized as the absolute number of fatalities (Table 3).

When the LCM bans were separated into federal and state bans, both remained significantly related to the incidence of LCM-involved high-fatality mass shooting events and to the number of LCM-involved high-fatality mass shooting deaths. The associations between federal and state bans and

TABLE 2—High-Fatality Mass Shootings (≥ 6 Victims Shot to Death) by Whether LCM Bans Were in Effect: United States, 1990–2017

	Average Annual Population, No. (Millions)	Total Incidents, No.	Annual Incidents per Billion Population, No.	Total Deaths, No.	Annual Deaths per Billion Population, No.	Deaths per Incident, No.
All high-fatality mass shootings, 1990–2017 (28 y)						
Non-LCM ban states	149.7	49	11.7	534	127.4	10.9
LCM ban states	140.7	20	5.1	164	41.6	8.2
All high-fatality mass shootings, 2005–2017 (13 y)						
Non-LCM ban states	227.8	39	13.2	446	150.6	11.4
LCM ban states	83.4	8	7.4	75	69.2	9.4
LCM-involved high-fatality mass shootings, 1990–2017 (28 y)						
Non-LCM ban states	149.7	34	8.1	428	102.1	12.6
LCM ban states	140.7	10	2.5	92	23.3	9.2
LCM-involved high-fatality mass shootings, 2005–2017 (13 y)						
Non-LCM ban states	227.8	28	9.5	369	124.6	13.2
LCM ban states	83.4	4	3.7	42	38.7	10.5
Non-LCM high-fatality mass shootings, 1990–2017 (28 y)						
Non-LCM ban states	149.7	8	1.9	56	13.4	7.0
LCM ban states	140.7	8	2.0	60	15.2	7.5

Note. LCM = large-capacity magazine.

TABLE 3—Multivariate Results of the Relationship Between LCM Bans and High-Fatality Mass Shootings (≥ 6 Victims Shot to Death), 1990–2017 Combined Federal and State Large Capacity Magazine Bans: United States

	LCM-Involved High-Fatality Mass Shootings, b (95% CI)		All High-Fatality Mass Shootings, b (95% CI)	
	Incidents ^a	No. Deaths ^b	Incidents ^a	No. Deaths ^b
All LCM bans (federal and state)	−2.217 (−3.493, −0.940)	−5.912 (−9.261, −2.563)	−1.283 (−2.147, −0.420)	−3.660 (−5.695, −1.624)
Population density	−0.011 (−0.052, 0.031)	0.013 (−0.068, 0.095)	0.001 (−0.003, 0.006)	0.011 (−0.005, 0.026)
% aged 19–24 y	−0.480 (−1.689, 0.730)	−2.496 (−5.893, 0.901)	0.283 (−0.599, 1.164)	−0.585 (−2.666, 1.495)
% aged 25–34 y	−0.801 (−1.512, −0.089)	−2.390 (−4.391, −0.388)	−0.337 (−0.871, 0.197)	−1.114 (−2.463, 0.235)
% Black	−0.227 (−1.062, 0.607)	−0.654 (−2.831, 1.522)	−0.163 (−0.703, 0.377)	−0.261 (−1.391, 0.870)
% with a bachelor’s degree or higher	−0.009 (−0.492, 0.474)	−0.469 (−1.590, 0.652)	0.143 (−0.214, 0.501)	0.183 (−0.715, 1.081)
Percentage of households with a firearm (proxy)	−0.047 (−0.195, 0.101)	−0.147 (−0.546, 0.251)	−0.020 (−0.131, 0.091)	−0.084 (−0.368, 0.200)
Median household income	0.000 (0.000, 0.000)	0.000 (0.000, 0.000)	0.000 (0.000, 0.000)	0.000 (0.000, 0.000)
Unemployment rate	−0.072 (−0.293, 0.149)	−0.476 (−1.081, 0.129)	0.041 (−0.135, 0.216)	−0.182 (−0.628, 0.263)
Imprisonment rate (per 100 000 population)	−0.006 (−0.012, 0.001)	−0.007 (−0.017, 0.004)	−0.001 (−0.006, 0.003)	−0.003 (−0.012, 0.007)
Total population	0.000 (0.000, 0.000)	0.000 (0.000, 0.000)	0.000 (0.000, 0.000)	0.000 (0.000, 0.000)
Pseudo <i>R</i> ²	0.31	0.16	0.26	0.11

Note. CI = confidence interval; LCM = large-capacity magazine. There were a total of 1428 observations in state-years (51 jurisdictions—all 50 states plus Washington, DC—over a 28-year period). Mean variance inflation factor = 3.49.

^aLogit regression.

^bNegative binomial regression.

the overall incidence of all high-fatality mass shootings as well as the total number of victims in these events remained strongly negative but was only sometimes statistically significant (Table 4).

In terms of sensitivity analyses, using probit instead of logit gave us similar results (not shown). When the outcome variable was the number of high-fatality mass shooting deaths, we obtained largely similar results concerning the association between LCM bans and the outcome variables, regardless of whether we used Poisson or negative binominal regression (not shown). Moreover, replacing the linear yearly trend with a quadratic function did not change the major results of the analyses (not shown). Variance inflation factors for all the independent variables never exceeded 10.0, with the variance inflation factor for LCM ban variables always being less than 2.0, indicating that there were no significant multicollinearity issues (Tables 3 and 4).

DISCUSSION

In the United States, LCMs are disproportionately used in high-fatality mass shootings (incidents in which ≥6 victims are shot to death). In at least 64% of the incidents

since 1990, perpetrators used LCMs. (For 23%, we determined that they did not involve LCMs, and a determination could not be made for the remaining 13%.) Previous research has shown that LCM firearms are used in a high share of mass murders (typically defined as ≥ 4 homicides) and murders of police.⁹

We could not find reliable estimates of LCM firearms in the US gun stock. However, it is likely much lower than 64%, given that commonly owned firearms such as revolvers, bolt-action rifles, and shotguns are not typically designed to be LCM-capable. During the decade the federal assault weapons ban was in effect, no firearms were legally manufactured with LCMs for sale in the United States. In the postban era, semiautomatic firearms, especially pistols, are often sold with factory-issue LCMs, but firearms that are not semiautomatic are not sold with such magazines.

Why do we find LCMs so prominent among high-fatality mass shootings? We suspect there are 2 main reasons. The first is that perpetrators probably deliberately select LCMs because they facilitate the ability to fire many rounds without having to stop to reload. The second reason is that the ability of shooters to kill many victims—especially the 6 victims required to be included in our data set—may be reduced if LCMs are not

available. In other words, the first explanation is that shooters perceive LCMs to be more effective at killing many people; the second explanation is that LCMs are indeed more effective at killing many people.

High-fatality mass shootings are not common, even in the United States. Between 1990 and 2017, there has been an average of 2.5 incidents per year, with an average of 25 people killed annually in such attacks. However, the number of incidents and the number of people killed per incident have been increasing since the end of the federal assault weapons ban.

In our study, we found that bans on LCMs were associated with both lower incidence of high-fatality mass shootings and lower fatality tolls per incident. The difference in incidence and overall number of fatalities between states, with and without bans, was even greater for LCM-involved high-fatality mass shootings.

The multivariate results are largely consistent with these bivariate associations. When we controlled for 10 independent variables often associated with overall crime rates, as well as state and year effects, states with LCM bans had lower rates of high-fatality mass shootings and fewer high-fatality mass shooting deaths. When we investigated federal and state bans separately in the multiple

TABLE 4—Multivariate Results of the Relationship Between Large Caliber Magazine Bans and High-Fatality Mass Shootings (≥ 6 Victims Shot to Death), 1990–2017 Separate Federal and State Large Caliber Magazine Bans: United States

	LCM-Involved High-Fatality Mass Shootings, b (95% CI)		All High-Fatality Mass Shootings, b (95% CI)	
	Incidents ^a	No. Deaths ^b	Incidents ^a	No. Deaths ^b
Federal LCM ban	-1.434 (-2.622, -0.245)	-3.571 (-7.103, -0.038)	-0.895 (-1.806, 0.016)	-2.570 (-4.902, -0.238)
State LCM bans	-2.603 (-4.895, -0.311)	-8.048 (-15.172, -0.925)	-1.277 (-2.977, 0.422)	-3.082 (-7.227, 1.064)
Population density	-0.012 (-0.055, 0.030)	-0.001 (-0.085, 0.083)	0.001 (-0.003, 0.006)	0.009 (-0.007, 0.024)
% aged 19–24 y	-0.311 (-1.499, 0.878)	-2.589 (-6.057, 0.879)	0.342 (-0.551, 1.236)	-0.531 (-2.759, 1.698)
% aged 25–34 y	-0.812 (-1.532, -0.093)	-2.660 (-4.848, -0.471)	-0.323 (-0.864, 0.217)	-0.848 (-2.236, 0.539)
% Black	-0.229 (-1.101, 0.643)	-0.770 (-3.232, 1.693)	-0.150 (-0.698, 0.398)	-0.154 (-1.321, 1.013)
% with a bachelor's degree or higher	-0.031 (-0.447, 0.509)	-0.479 (-1.577, 0.618)	0.156 (-0.199, 0.511)	0.269 (-0.567, 1.106)
Percentage of households with a firearm (proxy)	-0.055 (-0.210, 0.101)	-0.227 (-0.651, 0.196)	-0.019 (-0.133, 0.094)	-0.107 (-0.399, 0.186)
Median household income	0.000 (0.000, 0.000)	0.000 (0.000, 0.000)	0.000 (0.000, 0.000)	0.000 (0.000, 0.000)
Unemployment rate	-0.061 (-0.284, 0.162)	-0.420 (-1.041, 0.201)	0.046 (-0.132, 0.224)	-0.157 (-0.619, 0.305)
Imprisonment rate (per 100 000 population)	-0.006 (-0.013, 0.000)	-0.012 (-0.026, 0.002)	-0.002 (-0.007, 0.003)	-0.003 (-0.014, 0.007)
Total population	0.000 (0.000, 0.000)	0.000 (0.000, 0.000)	0.000 (0.000, 0.000)	0.000 (0.000, 0.000)
Pseudo R^2	0.30	0.15	0.26	0.11

Note. CI = confidence interval; LCM = large-capacity magazine. There were a total of 1428 observations in state-years (51 jurisdictions—all 50 states plus Washington, DC—over a 28-year period). Mean variance inflation factor = 3.45.

^aLogit regression.

^bNegative binomial regression.

regressions, both were significantly associated with the incidence of LCM-involved high-fatality mass shootings as well as the number of victims in LCM-involved attacks. The relationship between these bans, considered separately, and all high-fatality mass shooting incidence and deaths is often not statistically significant, although this may be attributable to lack of statistical power (number of observations) to find a statistically significant effect.

Our analysis provides answers to 4 important questions:

1. How often are LCMs used in high-fatality mass shootings? At minimum, 64% of high-fatality mass shootings perpetrated between 1990 and 2017 involved LCMs.
2. Are more people killed when LCMs are used? Yes, and the difference in our data set is substantial and statistically significant (11.8 vs 7.3). We should add that our results likely underestimate the difference because we have a truncated sample (we only examined incidents with at least 6 victim fatalities), compounded by the fact that the number of homicide incidents fell as the number of victims increased.
3. Do states with LCM bans experience high-fatality mass shootings involving LCMs at a lower rate and a lower fatality

count than those states with no such bans in effect? Yes. In fact, the effect is more pronounced for high-fatality mass shootings involving LCMs than for those not involving LCMs.

4. Do states with LCM bans experience high-fatality mass shootings (regardless of whether they involve LCMs) at a lower rate and a lower fatality count than states with no such bans in effect? Yes.

Limitations

Our study had various limitations. First, although we carefully searched for every high-fatality mass shooting, it is possible that we might have missed some. Nevertheless, we suspect that this is unlikely, because it would mean that others who compiled lists have also missed the same ones, for we checked our list against multiple sources.

Second, our definition of a high-fatality mass shooting is a shooting that results in 6 or more fatal victims. A different threshold criterion (e.g., 6 or more people shot; 5 or more victims killed), might lead to somewhat different results. We expect that as the number of victims in a shooting increases, the likelihood that the perpetrator used an LCM

also increases. Indeed, of the 13 high-fatality mass shootings with 10 or more fatalities in our data set, 12 (92%) involved an LCM.

Third, although many high-fatality mass shootings tend to be highly publicized, in 13% of the incidents we reviewed, we could not determine whether an LCM was used. As a sensitivity analysis, we assessed the assumptions that all of the unknown cases first did, and then did not, involve LCMs. Neither assumption appreciably changed our main results (not shown).

Fourth, as a general rule, clustering standard errors is most appropriate when there is a large number of treated units. Although during the decade of the federal assault weapons bans all 50 states plus the District of Columbia regulated LCMs, during the remaining time periods under examination, only 8 jurisdictions regulated LCMs. As a result, there is the possibility that the standard errors were underestimated in our analyses.³⁴

Fifth, there were only 69 events that met our criterion for a “high-fatality mass shooting.” Although 69 is a horrific number of incidents, for statistical purposes, it is a relatively small number and limits the power to detect significant associations. For example, we did not have the statistical power (and thus did not even try) to determine whether

different aspects of the various LCM laws might have differential effects on the incidence of high-fatality mass shootings. Moreover, because of suboptimal statistical power, there is also the possibility that the magnitude of the effects detected was overestimated.³⁵

Public Health Implications

LCMs increase the ability to fire large numbers of bullets without having to pause to reload. Any measure that can force a pause in an active shooting—creating opportunities for those in the line of fire to flee, take cover, or physically confront a gunman—offers a possibility of reducing the number of victims in such an attack. To put it in different terms, if the only firearms available were 18th-century muskets, it is doubtful that mass shootings would be the social problem they are today.

The impact of individual state firearm laws is reduced by the fact that guns often move across state lines—occasionally purchased in locales with more permissive laws and taken to states with more restrictive laws. This is partly why efforts aimed at reducing the frequency and lethality of mass shootings must necessarily be multifaceted and multidisciplinary. Legal restrictions on firearms are merely a part of this broader, public health approach. That being said, the theory behind reducing the availability of LCMs to reduce the number of victims in mass shootings makes sense, and our empirical results, consistent with much of the limited literature on mass shootings, suggest that LCM bans have been effective in saving lives. **AJPH**

CONTRIBUTORS

L. Klarevas and D. Hemenway designed the study, collected the data, and contributed equally to all parts of the study. A. Conner ran the statistical analyses and helped construct the tables that report the results of the multivariate analyses. All authors approved the final article as submitted.

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CONFLICTS OF INTEREST

L. Klarevas has, in the past 2 years, served as an expert to the states of Colorado and California in civil litigation that involved the constitutionality of state restrictions on large-capacity magazines. The authors have no additional conflicts of interest to report.

HUMAN PARTICIPANT PROTECTION

No protocol approval was needed because no human participants were involved in this study.

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EXHIBIT G

Changes in US mass shooting deaths associated with the 1994–2004 federal assault weapons ban: Analysis of open-source data

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BACKGROUND:	A federal assault weapons ban has been proposed as a way to reduce mass shootings in the United States. The Federal Assault Weapons Ban of 1994 made the manufacture and civilian use of a defined set of automatic and semiautomatic weapons and large capacity magazines illegal. The ban expired in 2004. The period from 1994 to 2004 serves as a single-arm pre-post observational study to assess the effectiveness of this policy intervention.
METHODS:	Mass shooting data for 1981 to 2017 were obtained from three well-documented, referenced, and open-source sets of data, based on media reports. We calculated the yearly rates of mass shooting fatalities as a proportion of total firearm homicide deaths and per US population. We compared the 1994 to 2004 federal ban period to non-ban periods, using simple linear regression models for rates and a Poisson model for counts with a year variable to control for trend. The relative effects of the ban period were estimated with odds ratios.
RESULTS:	Assault rifles accounted for 430 or 85.8% of the total 501 mass-shooting fatalities reported (95% confidence interval, 82.8–88.9) in 44 mass-shooting incidents. Mass shootings in the United States accounted for an increasing proportion of all firearm-related homicides (coefficient for year, 0.7; $p = 0.0003$), with increment in year alone capturing over a third of the overall variance in the data (adjusted $R^2 = 0.3$). In a linear regression model controlling for yearly trend, the federal ban period was associated with a statistically significant 9 fewer mass shooting related deaths per 10,000 firearm homicides ($p = 0.03$). Mass-shooting fatalities were 70% less likely to occur during the federal ban period (relative rate, 0.30; 95% confidence interval, 0.22–0.39).
CONCLUSION:	Mass-shooting related homicides in the United States were reduced during the years of the federal assault weapons ban of 1994 to 2004. (<i>J Trauma Acute Care Surg.</i> 2019;86: 11–19. Copyright © 2018 American Association for the Surgery of Trauma.)
LEVEL OF EVIDENCE:	Observational, level II/IV.
KEY WORDS:	Firearms; mass-shootings; assault weapons; epidemiology.

Increases in firearm-related injuries, particularly mass-shooting related fatalities, in the United States have contributed to a polarizing and sometimes contentious debate over gun ownership and limiting weapons characterized as assault weapons.^{1,2} Despite the increasing sense that there is an epidemic of indiscriminate firearm violence in our schools and public spaces, there is a paucity of public health evidence on the topic. Among a number of recommendations, a federal Assault Weapons Ban (AWB) has been proposed as a way to prevent and control mass shootings in the United States. In this article, we assess evidence for the effectiveness of such a ban in preventing or controlling mass-shooting homicides in the United States.

While mass shootings occur in other industrialized nations, the United States is particularly prone to these crimes. In a recent 30-year period, the United States had double the number of mass-shooting incidents than the next 24 industrialized nations combined.³ Any public perception of recent increases in the number of these events is borne out by analysis of available data.⁴ By one measure, there have been more deaths due to mass shootings in the United States in the past 18 years than in the entire 20th century.⁵ While there is some debate about the role of mental illness in mass shootings,^{6–8} many high-profile recent mass shootings (Aurora, CO; Roseburg, OR; San Bernadino, CA; Newtown, CT; Orlando; Las Vegas; Sutherland Springs, TX) have been characterized by the use of semiautomatic assault rifles,⁹ leading some to advocate for restrictions on the manufacture and sale of these weapons.

While survey results indicate that researchers in criminology, law and public health rank an assault weapons ban as one of the most effective measures to prevent mass shootings, and that 67% of the US general population support such a ban,¹⁰ the existing evidence on banning assault weapons is scant and sometimes contradictory. Most evidence is related to the Federal AWB of 1994, which made illegal the manufacture and use by civilians of a defined set of automatic and semiautomatic weapons and large capacity magazines. Formally known as “The Public Safety and Recreational Firearms Use Protection Act”, the AWB was part of the broader “Violent Crime Control and Law Enforcement Act of 1994. The ban lasted 10 years, expiring in 2004 when the US Congress declined to renew it.

In a study soon following the implementation of the 1994 ban, researchers reported a 55% decrease in the recovery of assault weapons by the Baltimore City Police in the first 6 months of 1995, indicating a statistically significant 29 fewer such firearms in the population.¹¹ In a 2009 study based on ICD9 external cause of injury codes for patients younger than 18 years in the United States, 11 states with assault and large-capacity magazine bans, as well as other firearm laws, were compared with 33 states without such restrictions. The incidence of firearm injuries per 1,000 total traumatic injuries was significantly lower in states with restrictive laws, 2.2 compared with 5.9.¹² In contrast, a comprehensive 2001 evaluation of the AWB itself concluded that there was “no evidence of reductions in multiple-victim gun homicides or multiple-gunshot wound victimizations”. The authors cautioned their results should be “interpreted cautiously” because of the short period since the ban’s inception, and that future assessments were warranted.¹³ More recent studies, while not primarily addressing the US Federal AWB have found results generally consistent with its effectiveness in preventing mass-shooting fatalities.^{14,15}

We believe sufficient time has passed and enough data have accumulated to treat the period from 1994 to 2004 as a naturalistic pre-post observational comparison period for the association of the AWB with changes in mass-shootings in the United States. Because there is no authoritative source or registry, or even a widely agreed upon definition for these incidents, we obtained data from three open source references and restricted our analyses to only those incidents confirmed by all three sources. We assess evidence for the potential effectiveness of such a ban in preventing and controlling mass-shooting homicides in the United States. We hypothesized that the implementation of the Federal AWB contributed to a reduction in mass shooting deaths as measured by the number and rate of mass shooting fatalities before, during, and after the federal AWB.

METHODS

Mass incident shooting data were obtained from three independent, well-documented and referenced online sources: Mother Jones Magazine, the Los Angeles Times and Stanford

University.^{16–18} These sources have each been the basis for a number of previous studies.^{19–26} Data from the three online open-source references were combined. Analyses were restricted to incidents reported by all three sources. Entries were further restricted to those for which four or more fatalities (not including the shooter) were reported, which meets the strictest definition of mass shootings as defined by the Federal Bureau of Investigation.^{27,28} Yearly homicide data were obtained from the US Centers for Disease Control and Prevention Web-based Injury Statistics Query and Reporting System (WISQARS) an online database of fatal and nonfatal injury.²⁹ Because 2017 data were not yet available in the WISQARS system, data for firearm-related homicide data for that year were obtained from a separate online source.³⁰

A variable was created to indicate the 1994 to 2004 period as the federal ban period. We attempted to identify incidents involving assault weapons. An assault weapon has been defined as semiautomatic rifle that incorporates military-style features such as pistol grips, folding stocks, and high-capacity detachable magazines.³¹ In this study, assault weapons were identified using the text search terms “AK,” “AR,” “MCX,” “assault,” “assault,” or “semiautomatic” in a text field for weapon details. These terms were based on descriptions of the federal assault ban legislative language.³² The total number of mass shooting fatalities and injuries were aggregated by year and merged with the yearly firearm homicide data.

The rate of mass shooting fatalities per 10,000 firearm homicide deaths was calculated. For the years covered by the data sources, we calculated (1) the total and yearly number of mass-shooting incidents that met the strictest criteria and were confirmed by all three sources, (2) the number of all weapon (assault and nonassault weapons) mass-shooting fatalities, and (3) the case-fatality ratio of all-weapon mass-shooting fatalities per 100 total mass-shooting fatalities and injuries. The yearly case-fatality ratio was plotted with overlying Loess line for trend and standard error limits. We also plotted the yearly rate of mass shooting fatalities per 10,000 firearm-related homicides with an overlying simple linear model with year as the predictor for (1) the total period, and (2) for preban, ban, and postban periods.

We evaluated assumptions of normality and linearity of the data using graphical methods such as density plots and Q-Q normal plots as well as summary statistics. We tested the hypothesis that the federal ban period was associated with a decrease in the number and rate of mass-shooting fatalities in the United States with a multiple linear regression model, with total homicide-based mass-shooting fatality rate as the outcome variable, a dichotomous indicator variable for the federal ban period as the predictor variable, and year as a control variable for trend over time. We calculated the relative risk of mass shooting fatalities during the federal ban period compared to nonban periods by using the “epitab” function of the R “epitools” package. This estimate is based on the ratio of the fatality rate during the ban period divided by the fatality rate during the nonban period. All results are presented with two-sided *p* values with a significance level of 0.05 and/or 95% confidence intervals (CI). We conducted subgroup analysis with data restricted to incidents in which an assault-type weapon was explicitly noted.

We conducted analyses to test the sensitivity of our results to the choice of denominator with linear regression models controlling

for trend with yearly rates based on (1) CDC WISQARS homicide data ending in 2016, (2) extrapolated CDC WISQARS homicide data for 2017, and (3) population denominator-based rates. We tested the robustness of our underlying modeling assumptions with an alternate mixed-effects generalized linear model of yearly mass shooting fatality counts with an observation-level random effect to account for overdispersion.

The study was determined to be exempt as nonidentifiable data. The study data and analytic code are available for download at <http://www.injuryepi.org/styled-2/>.

RESULTS

The three data sources listed incidents ranging in number from 51 (LA Times) to 335 (Stanford) and in dates from 1966 (Stanford) to 2018 (LA Times). There were a total of 51 reported cases of mass shootings between 1981 and 2017 confirmed by all three sources. Forty-four of these incidents met the strictest criteria for mass shootings (4 or more killed), totaling 501 all-weapon fatalities. In total 1,460 persons were injured or killed over the 37-year period, for a total case-fatality ratio of 34.3% (95% CI, 31.9–36.8). The overall rate of mass shooting fatalities per 10,000 firearm-related homicides was 10.2 (95% CI, 9.4–11.2). There was an increase in the all-weapon yearly number of mass-shooting fatalities in the United States during the study period, (Fig. 1) and evidence of a decrease in case fatality in the post-2010 period (Fig. 2). Incidents in which weapons were characterized as assault rifles accounted for 430 or 85.8% of mass-shooting fatalities (95% CI, 82.8–88.9). Weapons characterized as assault rifles accounted for *all* mass-shooting fatalities in 15 (62.5%) of the 24 (95% CI, 42.6–78.9) years for which a mass-shooting incident was reported, accounting for a total of 230 fatalities in those years.

Between 1981 and 2017, mass shootings in the United States accounted for an increasing proportion of all firearm-related homicides, with increment in year accounting for nearly 32% of the overall variance in the data. During the years in which the AWB was in effect, this slope decreased, with an increase in the slope of yearly mass-shooting homicides in the postban period

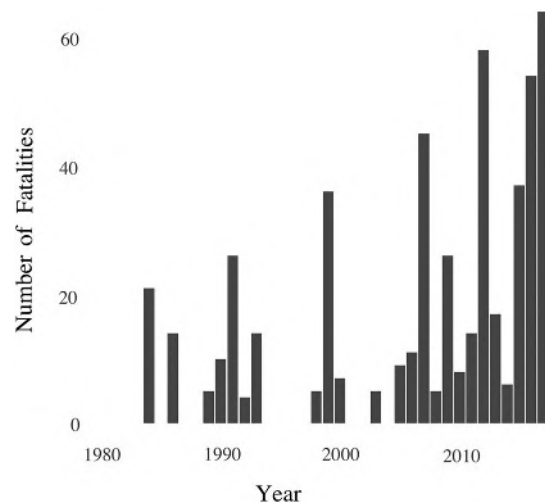


Figure 1. Mass shooting deaths. United States 1981–2017.

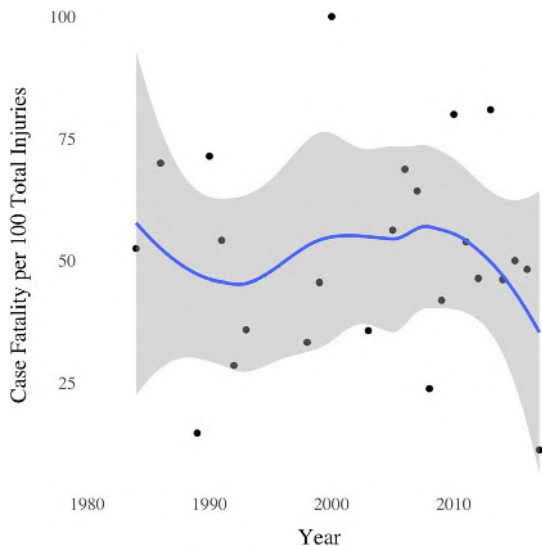


Figure 2. Case fatality per 100 total mass-shooting injuries with loess smoothing line for trend and standard error bounds. United States 1981–2017.

(Fig. 3). A similar pattern was evident in data restricted to those incidents characterized as involving assault weapons (Fig. 4).

In a linear regression model controlling for yearly trend, the federal ban period was associated with a statistically significant 9 fewer mass shooting–related deaths per 10,000 firearm homicides per year (Table 1). The model indicated that year and federal ban period alone accounted for nearly 40% of all the variation in the data (adjusted $R^2 = 0.37$). A subanalysis

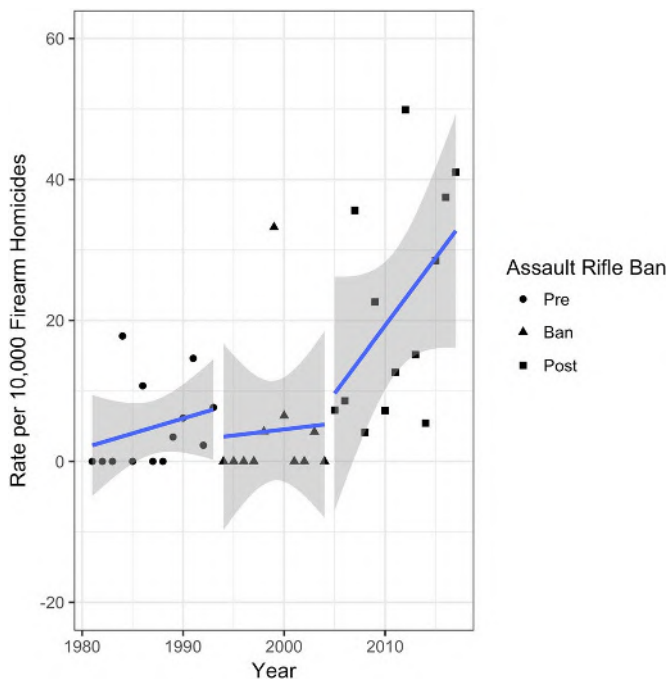


Figure 3. Mass shooting deaths per 10,000 firearm-related homicides with linear trends for preban, ban, and postban periods. United States 1981–2017.

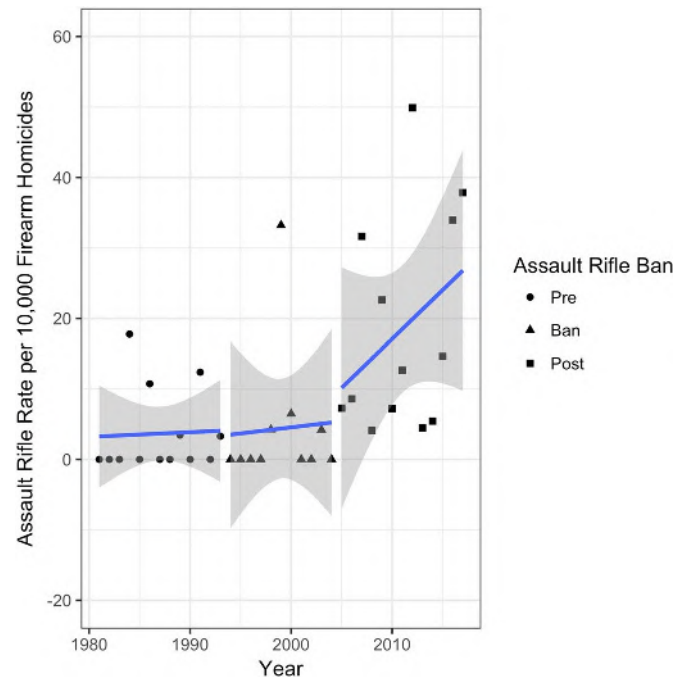


Figure 4. Mass-shooting shooting deaths per 10,000 firearm-related homicides restricted to incidents involving assault weapons with linear trends for preban, ban, and postban periods. United States 1981–2017.

restricted to just those incidents characterized by the use of an assault weapon indicated that seven preventable deaths during the ban period were due to assault weapons alone (Table 2).

The risk of mass shooting fatalities during the federal ban period was 53 per 140,515 total firearm homicides compared with 448 per 348,528 during the nonban periods, for a risk ratio of 0.30 (95% CI, 0.22–0.39). The calculated risk ratio for the association of the federal ban period with mass-shooting fatalities as a proportion of all firearm-related homicides was 0.29 (95% CI, 0.22–0.29), indicating that mass shooting fatalities were 70% less likely to occur during the federal ban period.

The results of our sensitivity analyses were consistent with our main analyses for total mass shooting fatalities. In a linear regression analysis controlling for yearly trend and restricted to the period ending in 2016 using just CDC WISQARS homicide data as the denominator, the effect of ban period was associated with a statistically significant eight fewer mass shooting related deaths per 10,000 firearm homicides per year (coefficient for ban period, 8.0; $p = 0.05$). In a similar model using extrapolated CDC WISQARS homicide data for 2017 instead of Online Gun Violence Archive data as the denominator, the effect of ban

TABLE 1. Linear Regression Effect of 1994–2004 Federal Assault Weapon Ban on Mass-Shooting Deaths per 10,000 Firearm Homicides, United States, 1981–2017

Variable	Estimate	Std. Error	<i>t</i>	<i>p</i>
(Intercept)	−1409.4	333.0	−4.2	0.0002
Year	0.7	0.2	4.3	0.0001
Ban Period	−8.6	3.9	−2.2	0.03

TABLE 2. Linear Regression Effect of 1994–2004 Federal Assault Weapon Ban on Mass-Shooting Deaths Characterized by Use of Assault Weapon per 10,000 Firearm Homicides, United States, 1981–2017

Variable	Estimate	Std. Error	t	p
(Intercept)	–1219.7	333.9	–3.7	0.0009
Year	0.6	0.2	3.7	0.0008
Ban	–6.7	3.9	–1.7	0.09

period was associated with a statistically significant 9 fewer mass shooting related deaths per 10,000 firearm homicides per year (coefficient for ban period, 8.6; $p = 0.03$). A model based on the total yearly US population as the denominator, the effect of ban period was associated with a statistically significant 0.4 fewer mass shooting related deaths per 10,000,000 population (coefficient for ban period, 0.4; $p = 0.02$).

The results of a mixed-effects generalized linear Poisson model of yearly mass shooting fatality counts with an observation-level random effect to account for overdispersion were very similar whether the offset variable was the number of total firearm deaths or the population size. In either case, the assault weapons ban period was associated with an approximately 85% reduction in mass shooting fatalities (Table 3).

DISCUSSION

Recently, 75% of members of the American College of Surgeons Committee on Trauma endorsed restrictions to “civilian access to assault rifles (magazine fed, semiautomatic, i.e., AR-15),”³³ and 76% of the Board of Governors were in favor of a limit to “... civilian access to ammunition designed for military or law enforcement use (that is, armor piercing, large magazine capacity).”³⁴ In 2015, the American College of Surgeons joined seven of the largest most prestigious professional health organizations in the United States and the American Bar Association to call for “restricting the manufacture and sale of military-style assault weapons and large-capacity magazines for civilian use.”³⁵ This analysis adds evidence to support these recommendations.

No observational epidemiologic study can answer the question whether the 1994 US federal assault ban was causally related to preventing mass-shooting homicides. However, this study adds to the evidence by narrowly focusing our question on the potential effect of a national assault weapon ban on mass shootings as measured through the lens of case fatality. While the data are amenable to a number of additional analyses, such as stratification by location (e.g. school vs. nonschool) or by characterization of large-capacity magazines versus non large-capacity magazine, we chose to focus only on year of occurrence and total number of fatalities. In this way, we relied on the least subjective aspects of the published reports. We believe our results support the conclusion that the ban period was associated with fewer overall mass-shooting homicides. These results are also consistent with a similar study of the effect of a 1996 ban on assault type weapons in Australia after which mass-shooting fatalities dropped to zero.³⁶

While the absolute effects of our regression analyses appears modest (7 to 9 fewer deaths per 10,000 firearm-homicides),

it must be interpreted in the context of the overall number of such fatalities, which ranges from none to 60 in any given year in our data. However, if our linear regression estimate of 9 fewer mass shooting-related deaths per 10,000 homicides is correct, an assault weapons ban would have prevented 314 of the 448 or 70% of the mass shooting deaths during the nonban periods under study. Notably, this estimate is roughly consistent with our odds ratio estimate and Poisson model results.

Our results add to the documentation that mass shooting-related homicides are indeed increasing, most rapidly in the postban period, and that these incidents are frequently associated with weapons characterized as assault rifles by the language of the 1994 AWB. We did not find an increase in the case fatality ratio of mass-shooting deaths to mass-shooting injuries. This might at first seem counterintuitive and paradoxical. The destructive effect of these weapons is unequivocal. They are engineered to cause maximum tissue damage rapidly to the greatest number of targets. However, it may be that the use of these kinds of weapons results in indiscriminate injury with additional rounds more likely to injure more people increasing the denominator in a case-fatality ratio. By contrast, the use of nonassault weapons may result in more precise targeting of victims. It is also possible that improvements in trauma care are driving down case fatality.³⁷ Also, it is worth noting that in absolute terms, there were many more fatalities outside the ban period and that survivable injury comes with its own physical, emotional, and economic costs, which have been estimated at US \$32,237 per hospital admission.³⁸

Despite US federal funding restrictions on firearm-related research dating to 1996,^{39,40} there is a small but growing number of analyses of mass shooting violence in the United States. Many articles have focused on the mental health aspects of these incidents,^{41–43} or on social effects like increased firearm acquisition following mass shootings.^{44,45} However, fewer studies have taken a strictly public health or clinical approach. Among these, an autopsy-based study of the incidence and severity of mass-shooting casualties concluded the wound patterns differed sufficiently from combat injuries to require new management strategies, indicating there is much to be learned from a systematic epidemiological perspective.⁴⁶ Recently, there have been calls to remove such funding restrictions from both academics and elected officials from across the political spectrum.^{47,48}

Our choice of data and analytic approach may reasonably be debated. We chose to base our analyses on the yearly rate of mass shooting fatalities per 10,000 overall firearm homicides. This is not a population-based risk estimate, but is in fact a risk as commonly used in the epidemiologic literature which is essentially a probability statement, that is, the number of events

TABLE 3. Exponentiated Coefficients Generalized Linear Poisson Model

Variable	Homicide Offset		Population Offset	
	Estimate	95% CI	Estimate	95% CI
Year	0.6	0.2	3.7	0.0008
Ban	–6.7	3.9	–1.7	0.09

Effect of 1994–2004 federal assault weapon ban on mass-shooting death counts. United States, 1981–20017.

that occurred over the number of times that event could occur. It is the risk of a homicide occurring as a result of a mass shooting. It may be considered a strong assumption to build mass shooting death rates based on the overall firearm homicide rate. The demographics of most homicide victims may differ appreciably from those of mass shooting victims. We selected this approach from among a number of imperfect potential denominators, believing that basing the rates on the number of firearm-homicides partly controls for secular trends in overall homicides and firearm availability. Our sensitivity analyses indicate that our results were robust to most any choice of denominator. We chose linear regression as our primary model because it was straightforward, accessible to most readers, accounted for linear trends in the data, and returned results in the metric in which we were most interested, that is, changes in the rate of fatalities. Our comparative Poisson model results were essentially consistent with the primary model.

These analyses are subject to a number of additional limitations and caveats, primary among which is that there is no authoritative source of data on mass shooting, and any one source may be biased and incomplete. It was for this reason that we chose to combine three independent sources of data, each with its own strengths and weaknesses, and base our analyses only on those numbers that were verified by all three sources. We further restricted our analyses to only the number of fatalities and the year in which the incident occurred, and to the strictest definition of mass shootings as defined by the Federal Bureau of Investigation.^{27,28} Even with this approach, the data remain imprecise and subject to differing definitions. We attempted to compensate for this by framing our questions as precisely as possible, following the advice of the scientist and statistician John Tukey to pursue, "... an approximate answer to the right question ...(rather) than the exact answer to the wrong question..."

In this study, we failed to falsify the hypothesis that the AWB was associated with a decrease in mass shooting fatalities in the United States. However, it is important to note that our model did not include important and potentially confounding factors like state-level and local differences in assault weapon laws following the sun downing of the federal AWB. Additional analyses including such variables and using approaches like propensity score matching and regression discontinuity⁴⁹ with data further aggregated to state and local levels are necessary to test the strength and consistency of our results.

Federally referenced denominator data were not available for the last year of the study. We chose to use data from the Online Gun Violence Archive to account for firearm homicide in 2017. This resource is a nonpartisan not-for-profit group founded and maintained by a retired computer systems analyst and gun advocate.⁵⁰ The alternative would have been to extrapolate from the CDC data, but the 15,593 firearm-related homicides reported by the Online Gun Violence Archive in 2017 was more consistent with the 14,415 reported by CDC in 2016 compared with the 11,599 predicted by an extrapolation and returned more conservative estimates of the increased rate of recent mass shootings. We note there were many years in which the number of mass-shooting fatalities is listed as zero. There were, in fact, fatalities and incidents in those years that could meet a definition of mass shooting, but they were not reported by all three sources, or did not meet the strict criteria we set for this analysis.

An assault weapon ban is not a panacea, nor do our analyses indicate that an assault weapon ban will result in fewer overall firearm-related homicides. It is important to recognize that suicides make up the majority of firearm-related deaths in the United States, accounting for 60.7% of 36,252 deaths from firearms in 2015.⁵¹ However, while this is a critically important issue in its own right, suicides differ fundamentally from mass-shootings, and are unlikely to be affected by an assault weapons ban. Also, compared with the 501 mass-shooting fatalities we counted, there were 489,043 firearm-related homicides in the United States. Public health efforts should be directed at reducing all gun violence and must be multipronged, including targeted initiatives to address mental illness and reducing access to weapons in those with a propensity for violence. However, taken in the context of the increase in mass shootings in the United States, these results support the conclusion that the federal AWB of 1994 to 2004 was effective in reducing mass shooting-related homicides in the United States, and we believe our results support a re-institution of the 1994 federal assault weapons ban as a way to prevent and control mass shooting fatalities in the United States.

DISCLOSURE

The authors have no conflicts of interest to declare.
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DISCUSSION

Ernest E. "Gene" Moore, MD (Denver, Colorado): Thank you, Dr. Rotondo and Dr. Reilly. Can I please have the discussion video. [sounds of a gun shooting]. Well, that is the AR15 rifle. Literally, 30 potential lethal shots delivered within 10 seconds. Is this safe to have in our society?

I congratulate Dr. DiMaggio and his colleagues from NYU for their superb presentation on a very timely issue. The AAST has had a long-term interest in reducing gun violence in the United States, and has recently published our 14-point approach. Access to assault rifles is one of them. At a reductionist level, mass shootings are the net result of (1) a deranged person intending to kill random individuals in a populated area, and (2) the use of an assault rifle. Since we seem to be unable to identify

the active shooter preemptively, we are left with the alternative solution of eliminating the weapon.

The presentation today provides evidence that a federal assault weapon ban can reduce mass shootings. According to our recent national trauma surgeon surveys, three-fourths of us in the audience, including me, would like to believe the analysis; but I think we need to consider some of the potential limitations.

Many of these issues relate to the fact that research support for gun violence control in the United States remains frustratingly suppressed and fundamentally inadequate. The general lack of information, low quality of data, and need to merge data sets from diverse sources – medical, coroner, police, legal, and behavioral – compounded by scarce funding and public controversy, undermine research to inform policy and enlighten the public. The fact that you had to compare three open-access databases to be certain that the reported mass shootings occurred underscores this deficiency.

Furthermore, there is no definition of a mass shooting, although you employed perhaps the most acceptable at the moment – the FBI's definition. Could you explain for us the rationale for this definition?

You present an analysis of 44 events with four or more deaths, including the shooter, from 1981 to 2017 – a 36-year period; whereas, others suggest a much higher incidence, such as Klaveras, who reported 69 shootings of six or more over the past 27 years.

Identifying all known mass shootings per year during a study period would be useful to appreciate the overall trends, as your data somewhat understates the magnitude of mass shootings in the United States.

You employed the Gun Violence Archive to estimate homicides in 2017. Why did you not use this source for mass shootings? The Archive has reported an alarming 261 mass shootings – defined as six or more shot – thus far in 2018. Nonetheless, in the sample you studied, assault rifles accounted for greater than 85 percent of the fatalities, and this is the key issue.

You have evaluated the impact of the federal assault rifle ban by analyzing the rate of mass shootings per 10,000 firearm homicide deaths per year to adjust for confounders. This would assume that the factors influencing mass shootings are the same as those for homicides, which seems very unlikely. You have indicated that you analyzed mass-shooting fatalities per population per year; perhaps you could elaborate more about this analysis.

Another confounder as acknowledged in the presentation is the impact of individual state limitations on magazine capacity. The first state to enforce these limitations was New Jersey in 1990, and now at least eight states and Washington, D.C., have these restrictions in effect. How can we distinguish the effects of this policy? And could this be a potential bridge to ultimately reestablish a national assault rifle ban?

You have also calculated the case fatality of all weapons in mass shootings per 100 total shootings, finding a decrease since 2010. While you conjecture this may be due to indiscriminate injury from assault rifles or possibly attributed to better trauma care, I am uncertain how this is relevant to the issue of banning assault rifles. The Las Vegas shooting is a cogent example of how these data may be misleading.

Finally, there is the issue of so-called falsification that could be addressed by examining other causes of trauma mortality during this time period.

In sum, this study adds to overwhelming evidence that assault rifles are an essential component in the dramatic escalation of mass shootings in the United States. While the scientific data to support a federal ban on civilian assault rifles is imperfect due to inadequate research support, I submit collectively the existing information argues strongly for enactment of this measure, and compliment the authors for their timely contribution.

Sheldon H. Teperman, MD (Bronx, New York): Dr. DiMaggio, your home institution, Bellevue, plays a seminal role in the trauma center safety of our nation.

In fact, right now, your trauma medical director is not present with us, but he is at home on guard for the U.N. General Assembly. But in New York, we don't see long-gun injuries. New York has the Safe Act, and there is an assault weapons ban. So why is it so important to America's trauma center – Bellevue – that we see a national ban on assault rifles?

Charles E. Lucas, MD (Detroit, Michigan): Thank you for your nice presentation. How many of these incidents occurred in an inner-city environment, where most of the victims that we treat have received multiple wounds which were purposely inflicted in order to compete competitively for the distribution of heroin and other drugs? Also, how many of the assailants were African-American?

Martin A. Croce, MD (Memphis, Tennessee): Thank you. I want to commend the authors for an excellent study, and really, not so much to ask any questions but I rise to put out a plea to the membership that this issue is a public health problem.

This is not a right versus left problem, this is not a Second Amendment problem. This is a public health problem.

And to quote Wayne Meredith at one of the recent Board meetings, "Our primary goal is to reduce the number of bullet holes in people." So I implore the Membership to correct this dearth of research that is going on about gun violence in order to promote a public health approach, so that we can reduce the number of bullet holes in people.

Deborah A. Kuhls, MD (Las Vegas, Nevada): And to carry on that thought, I would urge the authors to incorporate the public health data from the CDC when it is available, because part of the methodological issues for this paper is that one data set was used for a certain period of time.

But for the last year, the CDC data was not used because it was not available, so I would urge you to not only do that analysis, but I would also urge the Journal of Trauma to consider an update to that article when that is available. Thank you.

Charles DiMaggio, MPH, PhD (New York, New York): Thank you very much for all these comments and questions.

Dr. Moore, so with regard to your observation about the reductionist approach to looking at this particular issue, that puts me in the mind very much of the traditional epidemiologic triad of agent, host, and environment, and if you break one link in that connection, you can break the transmission. In this case, we could call assault weapons one link, whether it's agent or host, we can decide.

With regards to the rationale for the definition, I think it's reflective of the lack of research in this area.

A case definition is an essential and critical first step in any epidemiologic investigation, and you can see that we are barely there. I think the FBI definition makes sense, I think it's the oldest one, I think it's informed by expert consensus.

And I think all the other definitions are based in some form on that, which is why we chose it. And I would urge that if we are going to be doing this research going forward, probably it would be best if we all had the consensus that that be the definition.

Why did we not use the Gun Violence Archive to estimate some of these results, and why are our numbers so much smaller than some of the other numbers? I have to agree, our numbers are very much an under-count.

We restricted our analysis to these three databases. And so the limiting factor was the one database. And I can tell you it was the LA Times – they had the fewest number. And if it wasn't in the LA Times, then the other databases didn't contribute to this data set.

We felt that the important aspect of this particular study was to demonstrate the relative effects, merits or associations with the assault weapon ban as opposed to documenting the absolute numbers.

So the Gun Archive, for example, defines mass shootings as four or more deaths or injuries. That really raises the number of deaths that can be included. We didn't include it, but I think going forward we absolutely should.

With regard to the analysis using population denominators, we agree, actually, that gun homicides are an imperfect denominator. We also felt that population was an imperfect denominator. And again, as we keep on circling around, it has to do with the data in this case.

We did feel that gun homicides captured something about gun availability and criminality in the United States, although homicides themselves differ very much from these mass shooting fatalities.

We do note that our population-based results essentially mirrored the gun homicide results, indicating that, at least for the relative effects and benefits of the assault weapons ban, the

results are robust and invariant to the choice of denominator in this case.

Can we distinguish local effects, and could this possibly be a bridge to reestablishing an assault rifle ban? The short answer is yes and yes. We can distinguish local effects.

We took a very broad approach on this particular study as a first pass on the data. But, there are data sources (and even within the data sources we used) where you can tease out local, municipal and state policies.

Also, we can link our data to other sources that have those variables. There are statistical methods available that will not only account for those variables, but also allow us to measure or estimate in some way the contribution of local or regional variation in these policies to the overall effectiveness.

The issue of the case fatality rate is very interesting and challenging. I want to note that there was a paper in JAMA on September 11th – just a couple of weeks ago – looking at mass shooter fatalities, that came essentially to the same conclusion – that there has been this recent decrease.

In our paper, in this write-up, we look at three potential explanations, and one of them is, first of all, it's just a matter of denominator. These are indiscriminate weapons.

You have someone shooting at a large group of people, and there are going to be more injuries and more casualties, and it just inflates the denominator in this case.

The second thing is, the obverse of that, is single-fire weapons, guns, are very personal weapons. They're usually characterized by someone who knows who they want to kill. And finally, we feel that perhaps there may be some improvement by the folks in this room in treating these.

I'm going to close at this point, given the time constraints.

EXHIBIT H

Original Paper

Impact of Firearm Surveillance on Gun Control Policy: Regression Discontinuity Analysis

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Abstract

Background: Public mass shootings are a significant public health problem that require ongoing systematic surveillance to test and inform policies that combat gun injuries. Although there is widespread agreement that something needs to be done to stop public mass shootings, opinions on exactly which policies that entails vary, such as the prohibition of assault weapons and large-capacity magazines.

Objective: The aim of this study was to determine if the Federal Assault Weapons Ban (FAWB) (1994-2004) reduced the number of public mass shootings while it was in place.

Methods: We extracted public mass shooting surveillance data from the Violence Project that matched our inclusion criteria of 4 or more fatalities in a public space during a single event. We performed regression discontinuity analysis, taking advantage of the imposition of the FAWB, which included a prohibition on large-capacity magazines in addition to assault weapons. We estimated a regression model of the 5-year moving average number of public mass shootings per year for the period of 1966 to 2019 controlling for population growth and homicides in general, introduced regression discontinuities in the intercept and a time trend for years coincident with the federal legislation (ie, 1994-2004), and also allowed for a differential effect of the homicide rate during this period. We introduced a second set of trend and intercept discontinuities for post-FAWB years to capture the effects of termination of the policy. We used the regression results to predict what would have happened from 1995 to 2019 had there been no FAWB and also to project what would have happened from 2005 onward had it remained in place.

Results: The FAWB resulted in a significant decrease in public mass shootings, number of gun deaths, and number of gun injuries. We estimate that the FAWB prevented 11 public mass shootings during the decade the ban was in place. A continuation of the FAWB would have prevented 30 public mass shootings that killed 339 people and injured an additional 1139 people.

Conclusions: This study demonstrates the utility of public health surveillance on gun violence. Surveillance informs policy on whether a ban on assault weapons and large-capacity magazines reduces public mass shootings. As society searches for effective policies to prevent the next mass shooting, we must consider the overwhelming evidence that bans on assault weapons and/or large-capacity magazines work.

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KEYWORDS

firearm surveillance; assault weapons ban; large-capacity magazines; guns control policy; mass shootings; regression lines of discontinuity

Introduction**Background**

Approximately 44,000 people are killed and an additional 100,000 people are injured by a gun each year in the United States [1,2]. Mass shooting fatalities, as a particular type of gun injury event, account for <1% of all gun deaths [3] and have largely been ignored until recently [4,5]; yet, mass shooting events occur multiple times per year [6]. This information is based on insights from firearm surveillance performed by a variety of researchers, and state and federal agencies on incidence, prevalence, risk factors, injuries, deaths, and precipitating events, similar to the surveillance of infectious diseases such as COVID-19 [7-21]. Teutch and Thacker [22] defined public health surveillance as

the ongoing systematic collection, analysis, and interpretation of health data, essential to the planning, implementation, and evaluation of public health practice, closely integrated to the dissemination of these data to those who need to know and linked to prevention and control.

Not only do surveillance systems generate hypotheses to test but they also provide the data to test them.

The Federal Assault Weapons Ban (FAWB, also known as the Public Safety and Recreational Firearms Use Protection Act) included a ban on the manufacture for civilian use or sale of certain semiautomatic firearms defined as assault weapons as well as certain large-capacity magazines (LCMs). The Act was in effect for 10 years from 1994 until it sunsetted in 2004. Semiautomatic weapons (rapid fire) and assault weapons (second grip plus other features) are distinct; however, the two are often incorrectly conflated as similar [23-26]. Semiautomatic weapons are defined as weapons that automatically load another cartridge into a chamber, preparing the weapon for firing, but requiring the shooter to manually release and press the trigger for each round [23-26]. By contrast, automatic weapons are similarly self-loading, but allow for a shooter to hold the trigger for continuous fire [27]. Furthermore, the FAWB also prohibited certain ammunition magazines that were defined as “large-capacity” cartridges [28] containing more than 10 bullets [29]. These LCMs can feed ammunition to semiautomatic weapons that do not meet the criteria of being considered assault weapons. Furthermore, LCMs are considered one of the most important features of the FAWB as research has found a relationship between bans on LCMs and casualty counts at the state level [30-34]. The 10-year federal ban was signed into law by President Clinton on September 13, 1994 [28].

Firearm surveillance data have been used to test potential policy responses to prevent mass shootings, including the FAWB [32,34-39], Extreme Risk Protection Orders (also known as red flag laws) [40-45], and federal and state LCM bans [31,32,46]. In particular, it seems likely that the FAWB and LCM bans have potential to affect mass shootings because they regulate

weapons and ammunition formats that are designed to enable rapid discharge, which is a key feature in mass shooting incidents [24,47]. Other types of gun deaths may not be responsive to the FAWB or LCM bans. As an example, Extreme Risk Protection Orders or “Red Flag” orders [43,48], which temporarily prohibit at-risk individuals from owning or purchasing firearms, may be effective for preventing firearm suicides or domestic violence homicides [49] but less effective for public mass shooters [50,51]. The prohibition of LCMs may have no impact on firearm suicide because suicide decedents only require one bullet to kill themselves [52].

Several studies during and after the FAWB attempted to determine if gun policy that restricts the production and sale of assault weapons and LCMs decreased gun deaths [53,54]. These initial studies make meaningful contributions to the literature because they describe what constitutes assault weapons, magazine capacity, ballistics, and loopholes in the FAWB legislation [3,53-57]. However, these studies have found little to no evidence that these policies have had any overall effect on firearm homicides, gun lethality, or overall crime [58-61]. Since deaths from public mass shootings comprise less than 1% of all homicides based on our definition, testing whether or not the FAWB/LCM ban has an impact on homicide would wash out the effect. Since the FAWB/LCM ban may be effective at specific types of gun deaths, sampling must be limited to specific types of shooters over overall gun deaths or tests for lethality [62,63]. Finally, the variation in research findings is related to differences in research design, sampling frame, and case definition of a public mass shooting [3,53-56,64,65].

Our study differs from other studies that evaluated the efficacy of the FAWB because we used economic methods and a different outcome variable. Specifically, we focused on whether the FAWB resulted in fewer public mass shooting “events,” whereas other studies evaluated the number of gun injuries and deaths that occurred during the course of a mass shooting.

Objective

The aim of this study was to test whether curbing *access to certain types of guns and magazines* will decrease mass shooting events. We sought to empirically answer if there was a relationship between the FAWB and a reduction in mass shooting events.

Methods**Data Source**

We created a firearm surveillance system based on the National Institute of Justice-funded Violence Project dataset, which culled mass shooting events from 1966 to 2019 [6]. Consistent with earlier studies, we rely on the original Federal Bureau of Investigation (FBI) definition of a massacre, specifically where 4 or more people are killed within a single timeframe. We differentiate our mass shootings from others in that our inclusion criteria require the shootings to have occurred in a public setting.

We adapted this definition to only include massacres that involved gun deaths of 4 or more victims to isolate a particular type of mass shooter [66]. Many firearm surveillance systems that include mass shootings use a lower threshold of persons shot and many do not include deaths. An FBI report on active shooters in mass shooting events identified planning and preparation behaviors that are central to prevention [67]. This more narrow definition isolates premeditation, whereas broader definitions may include shooters that are more reactive [68]. Our case definition does not include family annihilators or felony killers because *familicides are defined by the victim-offender relationship, public massacres are defined by location, and felony killings are distinguished by motive* [69]. This differentiation is consistent with other mass shooting studies [70-72].

We examined the annual number of public mass shootings occurring between 1966 and 2019 that resulted in 4 or more fatalities. The hypothesis was that the FAWB reduced the number of public mass shootings per year during the period of the ban. We used regression discontinuity analysis to test the hypothesis. Regression discontinuity analysis is a standard economist tool used in policy analysis taking advantage of quasi-experimental designs [65,73].

Analyses

Regression discontinuity analysis allows for discontinuities or shifts in both the intercept and the slope of the trend line at both the onset and sunset of the FAWB. That is, we introduced intercept shift parameters in 1995 and 2005, and trend shift parameters for the periods 1995-2004 and 2005-2019. A statistically significant shift in a parameter indicates a discontinuity (ie, a finding that the FAWB had a statistically significant effect on the number of public mass shootings). We tested for statistical significance of the intercept and trend shift parameters both independently and jointly. All statistical inference was based on a significance level set at .05. We used the Huber-White robust residuals, which attenuate problems of autocorrelation, heteroscedasticity, and some types of model misspecification [74].

We then used the estimated model for two types of counterfactual analysis. First, we used the model to predict the number of public mass shootings that would have occurred had the FAWB not been in place. The difference between this counterfactual prediction and the modeled number of incidents with the FAWB in place provided an estimate of the number of public mass shootings that the FAWB prevented.

Second, we projected forward the number of public mass shootings that would have occurred had the FAWB been permanent (ie, continued from 2004 through to the end of the sample period). We note that in some sense, this is an “out of

sample” exercise because even though the sample extends to 2019, the FAWB ended in 2004; thus, this exercise would not pick up events in the past 15 years that would have augmented or compromised the effects of the FAWB. The difference between the modeled number of public mass shootings and the projected counterfactual number of public mass shootings could provide an estimate of the number of public mass shootings that the FAWB prevented.

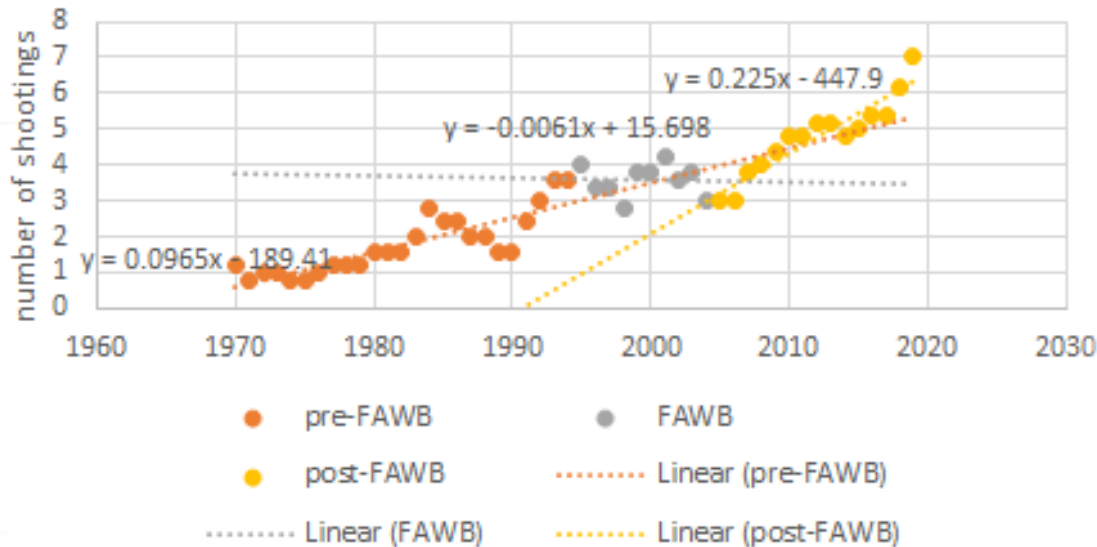
We performed a regression of the 5-year moving average of public mass shootings on the US population in millions, the homicide rate, and discontinuity variables to capture both the effects of the FAWB and its discontinuation. We did not introduce a trend line for the entire sample period because it is highly collinear with the population variable. For the period of the FAWB’s implementation, we originally introduced an intercept shift, time trend, and shift in the homicide rate; for the post-FAWB period, we introduced an intercept shift and a time trend. Due to collinearity, we retained only the trend shift in the final model for the FAWB period; for the post-FAWB period, we retained both the intercept and the trend shift.

Results

We identified a total of 170 public mass shooting events, the primary outcome variable, with 4 or more fatalities between 1966 and 2019. The 5-year cumulative number of public mass shootings is shown in Figure 1, providing a visualization of the impacts of the FAWB on the number of shootings. The first mass shooting occurred in 1966; hence, the first data point for the cumulative number of shootings over the previous 5 years occurs in 1970. For 1966 and 1967, the cumulative number of public mass shootings was 3. This number then increased to 12 in 1993 and declined to 3 in 2004. After 2004, the cumulative number of public mass shootings increased to 81 in 2019. The last year of the ban, 2004, experienced the fewest public mass shootings through 2019.

The regression results showed excellent explanatory power ($R^2=0.94$). The coefficient on population was positive and statistically significant (.044, $P<.001$). This coefficient means that for every increase in population of 1 million people, there are an additional .044 public mass shooting events per year. The coefficient on the homicide rate was negative and statistically significant ($-.249$, $P=.01$). The coefficient on the time trend for the FAWB period captures the effect of the FAWB; this coefficient was negative and statistically significant ($-.187$, $P=.001$). Using prediction models in combination with regression slopes, we estimate that 11 public mass shootings were avoided due to the FAWB. The intercept discontinuity for 2005-2019 was negative and statistically significant (-2.232 , $P=.001$), and the trend coefficient was positive and statistically significant (.081, $P=.001$).

Figure 1. Public mass shooting trend line using five year moving averages (1966-2019).

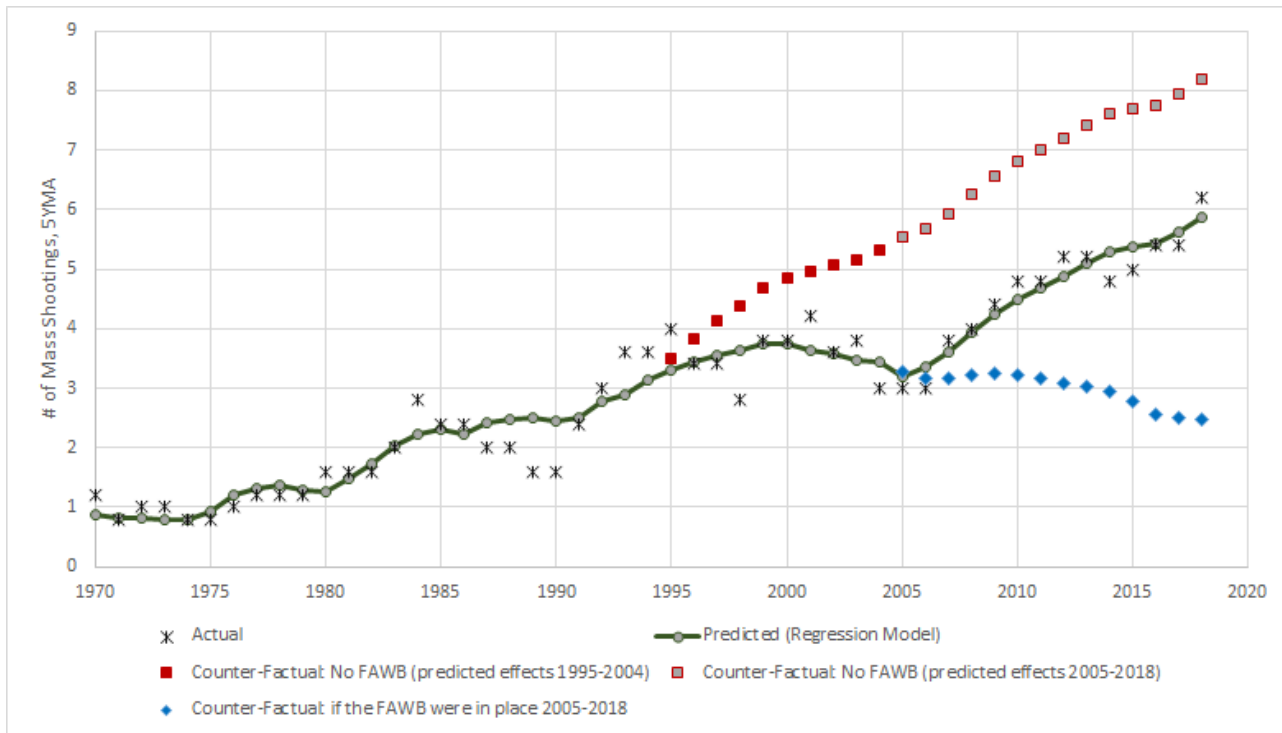


These results are graphed in Figure 2 in which the black stars represent the actual data and the green line represents the predicted numbers of public mass shootings from the regression discontinuity model. A bending of the trend during the FAWB period to become downward sloping at the end of the period is apparent, as is the return of the upward trajectory upon expiration of the FAWB. The red squares represent the projected numbers of public mass shootings during the FAWB period had there been no FAWB. The difference between the red squares

and the green lines represents the predicted number of public mass shootings averted by the FAWB. The model predicts that 11 public mass shootings were averted over the period of 1995-2004.

The blue diamonds represent the projected effects of a continuation of the FAWB through 2019 based on the observed trend from 1995 to 2004. This projection indicates that 30 public mass shootings would have been prevented from 2005 to 2019 had the FAWB been left in place.

Figure 2. Regression lines from discontinuity analysis of the federal assault weapons ban (1994-2004).



Discussion

Principal Findings

In total, 1225 people were killed in a mass shooting over the past 53 years with more than half occurring in the last decade, a function of increases in mass shootings and weapon lethality [62,63,75]. Public mass shooting fatalities and injuries far outpace population growth [75]. Between 1966 and 2019, the US population increased by 67% [76], whereas public mass shooting deaths increased by over 5-fold. The rise in public mass shootings throughout the sample period is in fact partially a function of population growth and homicide rate, along with the effects of the FAWB and its removal. An increase in the US population of 1 million people was associated with an increase of .040 ($P < .005$) public mass shootings per year. During the post-FAWB period, the increase in population from approximately 300 million in 2005 to 330 million in 2019 should be associated with an increase of 1.2 public mass shootings per year, compared to the actual increase of 4 public mass shootings per year in the data (5-year moving average). After controlling for population growth and homicide rate, a positive and statistically significant coefficient (.081, $P = .001$) on the 2005-2018 trend was seen. This further indicates a separate, nonpopulation trend of increasing violence operating during the post-FAWB period. The negative coefficient on the homicide rate invalidates the hypothesis that decreases in the numbers of public mass shootings are simply reflections of an overall decreasing homicide rate. The negative intercept discontinuity is consistent with an effect of the FAWB that persists somewhat beyond the immediate end of the ban. The positive trend coefficient is consistent with the hypothesis that the FAWB was associated with a decrease in the number of public mass shootings, as the expiration of the FAWB was associated with a shift from a downward trend to an upward trend in the number of public mass shootings per year.

The most striking finding from this study is that there was a reduction in the number of public mass shooting events while the FAWB was in place. Using prediction models in combination with regression slopes, we estimate that 11 public mass shootings were avoided due to the FAWB. By projecting what would have happened if the FAWB remained in place, we found that there would have been significantly fewer public mass shootings if the FAWB had remained in place to 2019. Remarkably, although it is intuitive that the removal of assault weapons and magazine clips will reduce the lethality of a mass shooting, we observed an inverse relationship between weapons/ammunition and mass shooting events, meaning that mass shooters may be less likely to perpetrate a mass shooting without rapid fire military-style weapons. This is an independent effect, which indirectly leads to fewer injuries and deaths. DiMaggio et al [64] also found evidence of a decrease in public mass shootings during the ban; however, their study period was shorter and was restricted to 51 public mass shootings. Unlike our study, they implicitly modeled public mass shootings as a random instance of general gun homicides that had a high death count [64]. In contrast, our findings suggest that public mass shootings are a unique type of premeditated gun violence. We found that prior to enactment of the FAWB, the rate of public

mass shootings was increasing. During enactment of the FAWB, there was a downward trend of mass shooting events. After the FAWB was lifted, public mass shootings increased dramatically. Firearm homicides in general follow no such patterns.

This effect was not found in the work of Koper, Roth, and colleagues [53-55]; however, their inclusion of all gun homicides masks the ban's effect on mass shootings. Even though Peterson and Densley's [77] work focused on perpetrator histories and not the FAWB, their findings that ease of gun access is characteristic of public mass shooters further supports our study. We restricted the inclusion criteria to public mass shootings to specifically test the effectiveness of the FAWB on public mass shooting events.

Regardless of the FAWB, bringing a semiautomatic rifle with high magazine capacity to a massacre significantly increases the number of fatalities and injuries. The increase in deaths is a function of rapid fire and increased ballistic energy. The increase in injuries is also a function of rapid fire and high-capacity magazines, enabling the shooter to shoot more people in crowded venues quickly before the crowd can disperse or hide. When controlling for the FAWB, the use of assault rifles decreased by half during implementation of the ban and tripled after the ban was lifted. This is a particularly important finding given that the FAWB had loopholes and that overall violent crime is decreasing [78]. First, all people with an assault weapon prior to the FAWB were allowed to retain their semiautomatic weapons [54,64]. Second, without a buyback program, semiautomatic weapons remained in the community [54,64]. Third, the ban did not target some military assault-like weapons [54,64]. Finally, a major loophole found in gun control legislation is that buyers can bypass background checks by purchasing their weapons and ammunition from gun shows, through illegal purchasing, or legally purchasing their guns and ammunition from another gun owner [57,63,79-87]. Even with these loopholes and issues, there was still a significant reduction in public mass shootings during the FAWB. These loopholes indicate that most people who purchase assault weapons do not become mass shooters; however, mass shooters require assault weapons and LCMs to carry out a mass shooting. Ban effectiveness might have improved if all assault weapons were included in the FAWB.

Some recent studies have specifically analyzed the effects of LCM bans on the incidence of public mass shootings. In a review of state legislation, Webster et al [88] found that bans of LCMs were associated with a significant reduction in the incidence of fatal public mass shootings. This study shows that the FAWB, which included a ban on LCMs, was associated with fewer fatalities and injuries during mass shootings in addition to fewer public mass shooting events. Koper et al [27] previously reported that 19% of public mass shootings resulting in 4 or more fatalities included the use of LCMs, while only 10% involved an assault weapon. Klarevas et al [29] found a similar pattern in shootings of 6 or more people, in which 67% of shooters utilized LCMs, whereas only 26% utilized an assault weapon. Because our study only looked at effects of the FAWB, which included an LCM ban, we were only able to determine the combined effects of limiting assault weapons and LCMs. To be clear, the reduction in the number of public mass

shootings, and resulting fatalities and injuries, may be a function of the ban on assault weapons, assault weapons plus LCMs, or only LCMs. We cannot separate out their independent effects at the national level.

Unlike our study, Webster et al [88] did not evaluate the incidence of assault weapons used in public mass shootings. Rather, they focused on fatalities from public mass shootings vs public mass shooting events. Although Webster et al [88] utilized the FBI Supplemental Homicide Report as their dataset, which is a voluntary reporting measurement system prone to errors in reporting, their findings are applicable to our analysis.

Limitations

Although we found statistically significant decreases during the FAWB, we cannot isolate aspects of the policy that are attributed to the decline. Most notably, the FAWB also included LCMs during the ban. It may be that the type of gun and/or the type of magazine resulted in a decline. Indeed, assault weapons and LCMs provide the means to carry out a mass shooting; however, there are likely other factors beyond this study that partially explain the radical increase in public mass shootings in the post-FAWB period. For example, the FAWB was in place from 1994 to 2004, which is the same time period that the US population largely adopted the internet, along with associated social communication software and websites. This may have

resulted in better tracking of public mass shootings or increased media coverage. Because our study specifically targeted the federal legislation, we omitted state-level gun policies such as state-level prohibitions on certain types of guns, LCMs, or more lethal types of bullets. It is likely that the internet serves as a contagion and as a guide to potential mass shooters, allowing them to access weapons and multiple stories about other mass shooters [62,67,89,90].

Conclusions

In summary, public mass shootings are a unique and specific type of homicide by a gun. We found evidence that public mass shootings are qualitatively different from general homicides because after the FAWB expired, mass shooting events increased while general homicides decreased. The increase in public mass shootings was more dramatic in the final 10 years of the study period following the end of the FAWB. We suspect that these outcomes may be improved by removing existing semiautomatic weapons with large bullet capacity by creating a buyback program for all rapid-firing weapons. Moreover, the legislation would be strengthened if it closed loopholes that allow gun buyers to get around the background check legislation and other purchase prohibitions by exempting gun shows and internet or person-to-person purchases, which were exempted from the FAWB and LCM ban [87].

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Conflicts of Interest

None declared.

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Abbreviations

FAWB: Federal Assault Weapons Ban
FBI: Federal Bureau of Investigation
LCM: large-capacity magazine

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EXHIBIT I

VIEWPOINT

Regulating Assault Weapons and Large-Capacity Magazines for Ammunition

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Durham,
North Carolina.**John J. Donohue, PhD,
JD**Stanford University,
Stanford, California.Viewpoint pages 1177,
1179, 1181, 1183, 1185,
1187, 1189, 1193, 1195,
and 1197 and Editorial
page 1201Supplemental
content

Mass public shootings in the US account for a small fraction of all firearm-related homicides, but have an outsized role in stoking the public's concern with firearm violence. The vivid instances of attacks on people in churches, schools, and offices and at other public gathering places do vastly disproportionate damage to peace of mind by creating a sense of peril in places that should feel safe. These attacks have been increasing in frequency and deadliness in recent years. As reducing this particular type of firearm violence becomes more urgent, the case for a variety of prevention measures becomes even stronger.

This Viewpoint focuses on a measure that is highly specific to the gun violence problem—stringent regulation of assault weapons and large-capacity magazines (LCMs) for ammunition. Federal law banned the introduction of new LCMs and military-style semiautomatic firearms between 1994 and 2004, but that regulation ended in 2004 and Congress did not renew it. Now, years later, the nation is experiencing the dire effects of opening the door to the manufacture and import of these weapons; it is time to close that door.

History and Current Status of Bans

The history of federal bans on weapons of mass destruction goes back to the 1934 National Firearms Act. Among other provisions, the Act required submachine guns and other firearms capable of fully

The 1994 Federal Assault Weapons Ban extended the regulation of military-style weapons to include some semi-automatic firearms. These weapons fire 1 round of ammunition for each pull of the trigger, and are capable of firing at a rate of roughly 1 per second. The 1994 Assault Weapons Ban ended the legal manufacture and import of specified firearms, as well as ammunition-feeding devices (magazines) that held more than 10 rounds of ammunition. At the time, most prohibited assault weapons were equipped with detachable magazines that held 30 rounds and could accept magazines that could hold as many as 50 or 100 rounds, thus making it possible to fire dozens of rounds without pausing to reload.²

The 1994 federal ban on new assault weapons had gaping loopholes. First, the federal ban did not restrict possession or transactions of existing assault weapons and LCMs. Second, manufacturers found ways to slightly modify the design of some of the banned weapons so that they met the letter of the law while preserving the military appearance and the possibility of accepting LCMs and firing high-powered ammunition quickly. Still, there is evidence that the ban had some salutary effect on mass public shootings.

The LCM ban, also in effect during 1994 to 2004, was not subject to the redesign problem because it provided a bright line that was difficult for manufacturers to overcome. There were, however, an estimated 25 million LCMs in circulation when the ban was enacted, and those remained in circulation, but with no new additions.² It was not just assault weapons (as defined) that were designed to use LCMs, but a variety of other semiautomatic firearms as well, so the LCM ban had much broader scope.

When the law expired in 2004, manufacturing and importations of LCMs and previously banned weapons resumed, and a surge of sales followed. Current estimates suggest that approxi-

Current estimates suggest that approximately 20 million assault weapons are owned by private individuals in the US, with millions of new assault weapons manufactured and imported each year.

automatic fire (ie, firing several shots with a single pull of the trigger) to be registered with the federal government.¹ All transactions involving such weapons were taxed at \$200, a high confiscatory amount at the time. The registration and tax requirement remained in place, although inflation has substantially undercut the force of the transfer fee. The Act was expanded by Congress in 1986 to end the sale of new fully automatic weapons. There is every reason to believe that these restrictions have been effective. Even though the Thompson submachine gun was a notorious gangster weapon in the 1920s, fully automatic weapons of any kind are rarely used in crime in modern times or in mass public shootings.¹

mately 20 million assault weapons are owned by private individuals in the US, with millions of new assault weapons manufactured and imported each year.³ The industry initially advertised these weapons as "assault rifles," and continues to promote them with military allusions but has now rebranded this type of weapon as the "modern sporting rifle."

Seven states have some version of a ban or stringent restrictions on assault weapons: California, Connecticut, Hawaii, Maryland, Massachusetts, New Jersey, and New York, as well as the District of Columbia.⁴ These laws are being challenged in the courts as a violation of the Second Amendment, but have survived these challenges to date.

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Evidence of Potential Effectiveness of a National Ban

A review conducted by the RAND Corporation concluded that the handful of published studies on the effect of the ban on mass public shootings was “inconclusive” due in part to flaws in the analysis used by the 3 studies with positive findings.⁴ But it is unlikely the surge in mass public shootings that involved assault weapons and LCMs that occurred after the ban would have happened if the ban had remained in place. The logic is straightforward. The sales of these weapons, which had declined during the ban, expanded greatly following its repeal, making them more widely available to everyone including would-be mass murderers.

To document recent trends in such mass public shootings requires a precise definition. One common definition for mass public shootings has several elements,^{5,6} including: (1) a minimum of 4 homicides; (2) a public location; and (3) circumstance not attributable to robbery, other felonious activity, or commonplace conflict in families or among acquaintances. A comprehensive compilation of such events is the Violence Project’s database of mass shootings in the US,⁷ which includes the number of people killed and injured in each event and the type of weapon or weapons used.

Information from this database indicates that in the years following when the law expired in 2004, the number of mass shooting incidents greatly increased and the number of fatalities increased even more. During the period from 2015 to 2019, the number of incidents reached 33 (or 6.6 per year), which was almost twice the number during the decade the Federal Assault Weapons Ban was in effect (eFigure and eTable in the Supplement). The number of fatalities from shootings that involved banned weapons decreased during the second half of the ban (2000-2004) and then surged during subsequent periods, reaching a total of 271 during 2015 to 2019. It was during that 5-year interval from 2015 to 2019 that 5 of the top-10 deadliest mass public shootings in US history occurred, and all were committed with assault weapons.⁸ The number of fatalities resulting from mass public shootings with other weapons has remained relatively flat.

The Australian Ban on Rapid-Fire Weapons

The Australian experience has factored into the debate over reinstating the assault weapons ban in the US. In Australia, the impetus for banning semiautomatic weapons was a 1996 mass public shoot-

ing in Port Arthur, Tasmania, in which a young man killed 35 people with a semiautomatic rifle. Swift action by the federal and state legislatures produced legislation that banned not only manufacture and import, but private possession of semiautomatic rifles. To ease the transition, a series of firearm buybacks were instituted, and 1 million weapons were ultimately relinquished, estimated to be one-third of all privately owned guns. Australia had 11 mass shootings during the decade prior to the ban,⁹ and 1 since then (a family killing in 2018 that would not count as a mass public shooting by the US definition).

The Australian experience is illustrative as a proof of concept for other countries, including the US. Of note, the ban covered all semiautomatic rifles, not just those with the specific features suggestive of use in warfare as opposed to hunting. The ban on possession of existing guns rather than only on the introduction of new guns greatly accelerated its apparent effectiveness.

Potential Next Steps

On July 29, 2022, the US House of Representatives passed the Assault Weapons Ban of 2022. To a large extent this bill reinstituted the 1994 ban, including the ban on the sale of new semiautomatic firearms deemed to be assault weapons, and of new LCMs holding more than 10 rounds. An important innovation is that for LCMs, the bill only allows continued possession and use of existing devices, but not transfer. However, given the reality that the US Senate will not enact this bill, it is useful to consider other approaches.

States could institute or expand assault weapon bans. Indeed, just a ban on LCMs would be a promising first step, impeding access to these products by individuals who could otherwise use them to fire multiple rounds of ammunition at large numbers of people before law enforcement can be mobilized to stop the killing.

Conclusions

In 2017, the *New York Times* polled “32 current or retired academics in criminology, public health and law, who have published extensively in peer-reviewed academic journals on gun policy”¹⁰ to ask them what measures would be most effective in dealing with the mass shooting problem in the US, and an assault weapons ban was deemed overall by this panel to be the single most effective measure. The evidence in support of a ban has grown tragically stronger since then.¹⁰

ARTICLE INFORMATION

Conflict of Interest Disclosures: Dr Donohue reported serving as an expert witness for various government entities on matters related to assault weapons bans based on his research in this area.

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EXHIBIT J

The Code of Professional Ethics and Practices

We—the members of the American Association for Public Opinion Research (AAPOR) and its affiliated chapters—subscribe to the principles expressed in this document, the AAPOR Code of Professional Ethics and Practices (“the Code”). Our goals are to support sound and ethical practice in the conduct of public opinion and survey research and promote the informed and appropriate use of research results.

The Code is based in fundamental ethical principles that apply to the conduct of research regardless of an individual’s membership in AAPOR or any other organization. Adherence to the principles and actions set out in the Code is expected of all public opinion and survey researchers.

As AAPOR members, we pledge to maintain the highest standards of scientific competence, integrity, accountability, and transparency in designing, conducting, analyzing, and reporting our work, and in our interactions with participants (sometimes referred to as respondents or subjects), clients, and the users of our research. We pledge to act in accordance with principles of basic human rights in research. We further pledge to reject all tasks or assignments that would require activities inconsistent with the principles of this Code.

The Code sets the standard for the ethical conduct of public opinion and survey research at the time of publication. Recommendations on best practices for research design, conduct, analysis, and reporting are beyond the scope of the Code but may be published separately by AAPOR Executive Council.

Definitions of Terms Used in the Code

1. “Public opinion and survey research” refers to the systematic collection and analysis of information from or about individuals, groups, or organizations concerning their behaviors, cognitions, attitudes or other characteristics. It encompasses both quantitative and qualitative research methods, traditional or emerging.
2. “Participants” refers to individuals whose behaviors, cognitions, attitudes, or other characteristics are measured and analyzed. Participants can include individuals representing groups or organizations, and individuals such as minors or those unable to consent directly, for whom a parent, legal guardian, or other proxy makes participation decisions or provides information.
3. “Personally identifiable information” refers to (i) measurements, records, or other data that can be used alone or in combination to distinguish or trace an individual’s identity and (ii) any other information that is linkable to an individual (e.g., employment information, medical history, academic records).

I. Principles of Professional Responsibility in Our Research

A. Responsibilities to Participants

1. We will avoid practices or methods that may harm, endanger, humiliate, or unnecessarily mislead participants and potential participants.

2. We will not misrepresent the purpose of our research or conduct other activities (such as sales, fundraising, or political campaigning) under the guise of conducting research.
3. We recognize that participation in our research is voluntary except where specified by regulation or law. Participants may freely decide, without coercion, whether to participate in the research, and whether to answer any question or item presented to them.
4. We will make no false or misleading claims as to a study's sponsorship or purpose and will provide truthful answers to participants' questions about the research. If disclosure of certain information about the research could endanger or cause harm to persons, could bias responses, or does not serve research objectives, it is sufficient to indicate, in response to participants' questions about the research, that some information cannot be revealed.
5. We recognize the critical importance of protecting the rights of minors and other vulnerable individuals when obtaining participation decisions and conducting our research.
6. We will act in accordance with laws, regulations, and the rules of data owners (providers of research or administrative records previously collected for other purposes) governing the collection, use, and disclosure of information obtained from or about individuals, groups, or organizations.

B. Responsibilities When Collecting Personally Identifiable Information

1. We recognize the right of participants to be provided with honest and forthright information about how personally identifiable information that we collect from them will be used.
2. We recognize the importance of preventing unintended disclosure of personally identifiable information. We will act in accordance with all relevant best practices, laws, regulations, and data owner rules governing the handling and storage of such information. We will restrict access to identifiers and destroy them as soon as they are no longer required, in accordance with relevant laws, regulations, and data owner rules.
3. We will not disclose any information that could be used, alone or in combination with other reasonably available information, to identify participants with their data, without participant permission.
4. When disclosing personally identifiable data for purposes other than the current research, we will relay to data users any conditions of their use specified in the participant permission we have obtained.
5. We understand that the use of our research results in a legal proceeding does not relieve us of our ethical obligation to protect participant privacy and keep confidential all personally identifiable data, except where participants have permitted disclosure.

C. Responsibilities to Clients or Sponsors

1. When undertaking work for a client, we will hold confidential all proprietary information obtained about the client and about the conduct and findings of the research undertaken for the client, except when the dissemination of the information is expressly authorized by the client.
2. We will inform those (partners, co-investigators, sponsors, and clients) for whom we conduct publicly released research studies about AAPOR's Standards for Disclosure in Section III of the Code, and provide information on what should be disclosed in their releases.

3. We will be mindful of the limitations of our expertise and capacity to conduct various types of research and will accept only those research assignments that we can reasonably expect to accomplish within these limitations.

D. Responsibilities to the Public

1. We will disclose to the public the methods and procedures used to obtain our own publicly disseminated research results in accordance with Section III of the Code.
2. We will correct any errors in our own work that come to our attention which could influence interpretation of the results. We will make good faith efforts to identify and issue corrective statements to all parties who were presented with the factual misrepresentation or distortions. If such factual misrepresentations or distortions were made publicly, we will correct them in a public forum that is as similar as possible to original data dissemination.
3. We will correct factual misrepresentations or distortions of our data or analysis, including those made by our research partners, co-investigators, sponsors, or clients. We will make good faith efforts to identify and issue corrective statements to all parties who were presented with the factual misrepresentations or distortions, and if such factual misrepresentations or distortions were made publicly, we will correct them in a public forum that is as similar as possible. We also recognize that differences of opinion in the interpretation of analysis are not necessarily factual misrepresentations or distortions and will exercise professional judgment in handling disclosure of such differences of opinion.

E. Responsibilities to the Profession

1. We recognize the importance to the science of public opinion and survey research of disseminating as freely as practicable the ideas and findings that emerge from our research.
2. We can point with pride to our membership in AAPOR and adherence to the Code as evidence of our commitment to high standards of ethics in our relations with research participants, our clients or sponsors, the public, and the profession. However, we will not cite our membership in the Association nor adherence to this Code as evidence of professional competence, because the Association does not certify the professional competence of any persons or organizations.

II. Principles of Professional Practice in the Conduct of Our Work

A. We will exercise due care in developing research designs, samples, and instruments, and in collecting, processing, and analyzing data, taking all reasonable steps to assure the reliability and validity of results.

1. We will recommend and employ only those tools and methods of analysis that, in our professional judgment, are fit for the purpose of the research questions.
2. We will not knowingly select research tools and methods of analysis that yield misleading conclusions.
3. We will not knowingly make interpretations of research results that are inconsistent with the data available, nor will we tacitly permit such interpretations. We will ensure that any findings we report, either privately or for public release, are a balanced and accurate portrayal of research results.
4. We will not knowingly imply that interpretations are accorded greater confidence than the data warrant. When we generalize from samples to make statements about populations, we will only make claims of precision and applicability to broader populations that are warranted by the sampling frames and other methods employed.

1 5. We will not engage in data fabrication or falsification.

2 6. We will accurately describe and attribute research from other sources that we cite in our work, including its methodology,
3 content, comparability, and source.

4 B. We will describe our methods and findings accurately and in appropriate detail in all research reports, adhering to the standards
5 for disclosure specified in Section III of the Code.
6
7

8 **III. Standards for Disclosure**

9 Broadly defined, research on public opinion can be conducted using a variety of quantitative and qualitative methodologies,
10 depending on the research questions to be addressed and available resources. Accordingly good professional practice imposes the
11 obligation upon all public opinion and survey researchers to disclose sufficient information about how the research was conducted to
12 allow for independent review and verification of research claims, regardless of the methodology used in the research. Full and
13 complete disclosure for items listed in Section A will be made at the time results are released, either publicly or to a research client,
14 as the case may be. As detailed below, the items listed in Section B, if not immediately available, will be released within 30 days of
15 any request for such materials. If the results reported are based on multiple samples or multiple modes, the preceding items (as
16 applicable) will be disclosed for each.
17

18 **A. Items for Immediate Disclosure**

19 1. **Data Collection Strategy:** Describe the data collection strategies employed (e.g. surveys, focus groups, content analyses).
20

21 2. **Who Sponsored the Research and Who Conducted It.** Name the sponsor of the research and the party(ies) who
22 conducted it. If the original source of funding is different than the sponsor, this source will also be disclosed.
23

24 3. **Measurement Tools/Instruments.** Measurement tools include questionnaires with survey questions and response options,
25 show cards, vignettes, or scripts used to guide discussions or interviews. The exact wording and presentation of any
26 measurement tool from which results are reported as well as any preceding contextual information that might reasonably be
27 expected to influence responses to the reported results and instructions to respondents or interviewers should be included.
28 Also included are scripts used to guide discussions and semi-structured interviews and any instructions to researchers,
29 interviewers, moderators, and participants in the research. Content analyses and ethnographic research will provide the
30 scheme or guide used to categorize the data; researchers will also disclose if no formal scheme was used.
31

32 4. **Population Under Study.** Survey and public opinion research can be conducted with many different populations including,
33 but not limited to, the general public, voters, people working in particular sectors, blog postings, news broadcasts, an elected
34 official's social media feed. Researchers will be specific about the decision rules used to define the population when
35 describing the study population, including location, age, other social or demographic characteristics (e.g., persons who

access the internet), time (e.g., immigrants entering the US between 2015 and 2019). Content analyses will also include the unit of analysis (e.g., news article, social media post) and the source of the data (e.g., Twitter, Lexis-Nexis).

5. **Method Used to Generate and Recruit the Sample.** The description of the methods of sampling includes the sample design and methods used to contact or recruit research participants or collect units of analysis (content analysis).
 - a. Explicitly state whether the sample comes from a frame selected using a probability-based methodology (meaning selecting potential participants with a known non-zero probability from a known frame) or if the sample was selected using non-probability methods (potential participants from opt-in, volunteer, or other sources).
 - b. Probability-based sample specification should include a description of the sampling frame(s), list(s), or method(s).
 - i. If a frame, list, or panel is used, the description should include the name of the supplier of the sample or list and nature of the list (e.g., registered voters in the state of Texas in 2018, pre-recruited panel or pool).
 - ii. If a frame, list, or panel is used, the description should include the coverage of the population, including describing any segment of the target population that is not covered by the design.
 - c. For surveys, focus groups, or other forms of interviews, provide a clear indication of the method(s) by which participants were contacted, selected, recruited, intercepted, or otherwise contacted or encountered, along with any eligibility requirements and/or oversampling.
 - d. Describe any use of quotas.
 - e. Include the geographic location of data collection activities for any in-person research.
 - f. For content analysis, detail the criteria or decision rules used to include or exclude elements of content and any approaches used to sample content. If a census of the target population of content was used, that will be explicitly stated.
 - g. Provide details of any strategies used to help gain cooperation (e.g., advance contact, letters and scripts, compensation or incentives, refusal conversion contacts) whether for participation in a survey, group, panel, or for participation in a particular research project. Describe any compensation/incentives provided to research subjects and the method of delivery (debit card, gift card, cash).
6. **Method(s) and Mode(s) of Data Collection.** Include a description of all mode(s) used to contact participants or collect data or information (e.g., CATI, CAPI, ACASI, IVR, mail, Web for survey; paper and pencil, audio or video recording for qualitative research, etc.) and the language(s) offered or included. For qualitative research such as in-depth interviews and focus groups, also include length of interviews or the focus group session.
7. **Dates of Data Collection.** Disclose the dates of data collection (e.g., data collection from January 15 through March 10 of 2019). If this is a content analysis, include the dates of the content analyzed (e.g., social media posts between January 1 and 10, 2019).

8. **Sample Sizes (by sampling frame if more than one frame was used) and (if applicable) Discussion of the Precision of the Results.**

- a. Provide sample sizes for each mode of data collection (for surveys include sample sizes for each frame, list, or panel used).
- b. For probability sample surveys, report estimates of sampling error (often described as “the margin of error”) and discuss whether or not the reported sampling error or statistical analyses have been adjusted for the design effect due to weighting, clustering, or other factors.
- c. Reports of non-probability sample surveys will only provide measures of precision if they are defined and accompanied by a detailed description of how the underlying model was specified, its assumptions validated, and the measure(s) calculated.
- d. If content was analyzed using human coders, report the number of coders, whether inter-coder reliability estimates were calculated for any variables, and the resulting estimates.

9. **How the Data Were Weighted.** Describe how the weights were calculated, including the variables used and the sources of the weighting parameters.

10. **How the Data Were Processed and Procedures to Ensure Data Quality.** Describe validity checks, where applicable, including but not limited to whether the researcher added attention checks, logic checks, or excluded respondents who straight-lined or completed the survey under a certain time constraint, any screening of content for evidence that it originated from bots or fabricated profiles, re-contacts to confirm that the interview occurred or to verify respondent’s identity or both, and measures to prevent respondents from completing the survey more than once. Any data imputation or other data exclusions or replacement will also be discussed. Researchers will provide information about whether any coding was done by software or human coders (or both); if automated coding was done, name the software and specify the parameters or decision rules that were used.

11. **A General Statement Acknowledging Limitations of the Design and Data Collection.** All research has limitations and researchers will include a general statement acknowledging the unmeasured error associated with all forms of public opinion research.

B. Additional Items for Disclosure. After results are reported, we will make the following items available within 30 days of any request for such materials:

1. Procedures for managing the membership, participation, and attrition of the panel, if a pool, panel, or access panel was used. This should be disclosed for both probability and non-probability surveys relying on recruited panels of participants.

2. Methods of interviewer or coder training and details of supervision and monitoring of interviewers or human coders. If machine coding was conducted, include description of the machine learning involved in the coding.
3. Details about screening procedures, including any screening for other surveys or data collection that would have made sample or selected members ineligible for the current data collection (e.g., survey, focus group, interview) will be disclosed (e.g., in the case of online surveys if a router was used).
4. Any relevant stimuli, such as visual or sensory exhibits or show cards. In the case of surveys conducted via self-administered computer-assisted interviewing, providing the relevant screen shot(s) is strongly encouraged, though not required.
5. Summaries of the disposition of study-specific sample records so that response rates for probability samples and participation rates for non-probability samples can be computed. If response or cooperation rates are reported, they will be computed according to AAPOR Standard Definitions. If dispositions cannot be provided, explain the reason(s) why they cannot be disclosed, and this will be mentioned as a limitation of the study.
6. The unweighted sample size(s) on which one or more reported subgroup estimates are based.
7. Specifications adequate for replication of indices or statistical modeling included in research reports.

1 C. Access to Datasets

2 Reflecting the fundamental goals of transparency and replicability, AAPOR members share the expectation that access to datasets
3 and related documentation will be provided to allow for independent review and verification of research claims upon request. In order
4 to protect the privacy of individual respondents, such datasets will be de-identified to remove variables that can reasonably be
5 expected to identify a respondent. Datasets may be held without release for a period of up to one year after findings are publicly
6 released to allow full opportunity for primary analysis. Those who commission publicly disseminated research have an obligation to
7 disclose the rationale for why eventual public release or access to the datasets is not possible, if that is the case.

8
9 D. AAPOR Standards Complaint

10 If any of our work becomes the subject of a formal investigation of an alleged violation of this Code, undertaken with the approval of
11 the AAPOR Executive Council, we will provide additional information on the research study in such detail that a fellow researcher
12 would be able to conduct a professional evaluation of the study.

13
14 .

EXHIBIT K

AMERICA'S OLDEST CONTINUOUSLY PUBLISHED NEWSPAPER

Hartford Courant

VOLUME CLXXVI NUMBER 358

COURANT.COM • MOBILE.COURANT.COM

SUNDAY, DECEMBER 23, 2012

STARTING OVER

NEW SCHOOL, MADE FAMILIAR

Hundreds Of Volunteers Help Ease Transition For Sandy Hook Kids

By BRIAN DOWLING
bdowling@courant.com

Sandy Hook Elementary School students will find that volunteers have painted the walls of their new school green and white, their school colors. The movers set furniture, desks, computers and supplies in the same places as their old classrooms in Newtown. Volunteers pinned the same posters to new classroom walls.

The re-creation of Sandy Hook Elementary at Chalk Hill School in Monroe involved hundreds of people over the past week. Locksmiths, plumbers, electricians, custodians, experts in fire suppression and security systems, as well as residents with paint brushes, all volunteered time to create an around-the-clock renovation team, which peaked at 500 workers.

Thanks to that effort, the surroundings will be

CHALK HILL, A4



WFSB | POOL

THE WELCOME sign is ready at Chalk Hill School in Monroe, where Sandy Hook students will begin classes Jan. 3.



ADAM LANZA

Shooter Paused, And Six Escaped

By DAVE ALTIMARI,
EDMUND H. MAHONY
and JON LENDER
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As many as a half-dozen first-graders may have survived Adam Lanza's deadly shooting spree at Sandy Hook Elementary School because he stopped firing briefly, perhaps to reload his rifle or because it jammed, according to law enforcement officials familiar with the events.

A source said that the Bushmaster rifle that Lanza used in the shootings is at the state police forensic laboratory undergoing several tests, including tests to determine whether it jammed.

The children escaped from the first-grade classroom of teacher Victoria Soto, one of the six educators Lanza killed in Newtown after shooting his way through a glass door with the .223-caliber semiautomatic rifle on the morning of Dec. 14.

On Friday, detectives obtained and began examining records related to psychiatric care Lanza had received

RIFLE, A6

A6 SUNDAY, DECEMBER 23, 2012 THE HARTFORD COURANT
TRAGEDY IN NEWTOWN

Rifle

Continued from Page A1

in an attempt to determine a motive. Several friends of his mother have said that he had Asperger's syndrome but authorities have neither confirmed that nor indicated it had anything to do with the shootings.

Lanza killed 27 people — 20 children, four teachers, the school principal, a school psychologist and his mother, Nancy — before shooting himself in the head as police began arriving at the school.

The arriving officers encountered a shocking scene in Son's classroom. Lanza had shot her, as well as special education teacher Anne Marie Murphy and six of Son's 6- and 7-year old students. Seven of Son's students were found huddled and unharmed in a classroom closet, apparently hidden by Son when she heard shooting. The other students fled the classroom.

Based on initial statements from surviving children and the fact that un-fired cartridges from Lanza's rifle were found on the ground, detectives suspect that some students were able to run to safety when Lanza stopped firing, probably for a short period of time, the officials said.

It is possible that Lanza, who reloaded the rifle frequently, mishandled or dropped a magazine and cartridges fell to the floor, they said.

But it also is possible, they said, that the mechanism that fed cartridges into the rifle jammed, causing Lanza to remove the magazine and clear the weapon. Un-fired cartridges could have fallen in the classroom floor during that process as well, law enforcement officials said.

The six children who escaped Lanza's rampage ran to a home a short distance from the school. Upon reaching the home, one of the boys told the owner that "we obeyed the rules, we stayed on the sidewalk," one of the officials said.

The authorities have hurried generally from the children who ran away, but something may have happened to Lanza's rifle that caused him to stop firing. The substance of the statements, which are not entirely consistent, is that a piece of the weapon, probably a magazine holding live cartridges, was dropped or fell to the classroom floor.

Investigators have decided not to formally interview the children, based on advice from Yale child psychologists. Given the chaotic nature of the scene, it is also possible that some children escaped while Lanza was shooting others.

State police are expected to wrap up work at the school and release the school as a crime scene in the next few days. They still are trying to determine how many shots Lanza fired.

Lanza killed himself in Son's classroom with one of the two pistols he carried into the building. He killed himself as police entered the building.

Police found a loaded 20-round shotgun in the trunk of the car similar to what is known as a "street sweeper." Police believe that Lanza didn't bring it into the school because he couldn't carry all of the weapons and ammunition. Lanza, who was about 6 feet tall, weighed barely 100 pounds, law enforcement sources said.

The few people who knew Lanza have portrayed him in the days since the mass shootings as an awkward, emotionally isolated, withdrawn young man. He attended public schools in Newtown, but at times was home-schooled by his mother, who was said by authorities and others to be the only person with whom he was socially engaged.

Lanza lived with his mother. He had two bedrooms and used one of them to keep computer equipment on which he is said to have enjoyed playing video games involving violent war games.

Before the shootings at the elementary school, Lanza shot his mother four times with a .22-caliber rifle as she lay in bed. He left the rifle at the house. All the

gunners were properly registered to Nancy Lanza.

Adrian Lanza also broke apart his computer equipment in a way that has prevented authorities from recovering data that could reveal with whom he may have corresponded or played video games.

He then drove to the school, getting there about 9:30 a.m. He walked up to the front entrance and fired at least a half-dozen rounds into the glass doors. The

thunderous sound of Lanza howling as opening big enough to walk through the locked school door caused Principal Dawn Hochsprung and school psychologist Mary Schertach to bolt from a nearby meeting room to investigate.

He shot and killed them both as they ran toward the school. Two other staff workers in a meeting with Hochsprung and Schertach were injured in the hail of bullets but made it back inside the

conference room where one called 911 from under a table.

Lanza then turned toward the first classroom on his left, that of teacher Kathleen Roig. By then, authorities said, Roig had hidden with her students in a closet in her classroom. Before securing the closet door, which opened inward, authorities said she concealed the door behind a movable bookcase.

Lanza then walked past

Son's classroom into the third one, where Lanza Roig was teaching. He shot and killed Roig, special education teacher Rachel Drivno and 14 students.

One member of the class was not killed, although it is not clear if the child escaped of the shooting or was not in the room.

"I think the community is very much respecting their privacy," Newtown schools Superintendent Janet Robinson said of the student's family. "I think that everyone is very sensitive to what a horrific experience this 6-year-old... has been through."

Much later, after police had found Lanza's body and were searching for survivors, an officer had to slide a ladder beneath the closet door before Roig could be persuaded to open it.

Coronet staff writer Matthew Boardman contributed to this story.

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